S. HRG. 98-1074

CONTRACTING OUT CERTAIN NOAA FUNCTIONS

HEARING

BEFORE THE

NATIONAL OCEAN POLICY STUDY

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION UNITED STATES SENATE

NINETY-EIGHTH CONGRESS

SECOND SESSION

ON

CONTRACTING OUT CERTAIN NOAA FUNCTIONS

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CONTENTS

Page

Opening statement by Senator Stevens 1
Opening statement by Senator Gorton 2
Opening statement by Senator Hollings 2

LIST OF WITNESSES

Ayers, Lawrence F., Deputy Director, Management and Technology, Defense Mapping Agency, accompanied by Robert J. Beaton, Associate Deputy Director, Hydrography; and Edward J. Obloy, General Counsel. 16
Prepared Statement 22
Questions of the Committee and the answers thereto 24
Baier, John W., manager, Airspace Rules and Aeronautical Information Division, Federal Aviation Administration 3
Questions of the Committee and the answers thereto 10
Byrne, Dr. John V., Administrator, National Oceanic and Atmospheric Administration, Department of Commerce 26
Winchester, James, Associate Administrator, National Oceanic and Atmospheric Administration, Department of Commerce 26
Prepared statement 32
Questions of the Committee and the answers thereto. 48
Wojnar, Rear Adm. Theodore J., Chief, Office of Navigation, U.S. Coast Guard, accompanied by Comdr. Gaylen Sidall, Chief, Navigation Rules and Information Branch 12

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

Blaylock, Kenneth T., national president, American Federation of Government Employees, statement 62
Birkhofer, William J., managing director, governmental and international services, American Consulting Engineers Council, letter of July 20, 1984 68
Cisar, Capt. Clayton, president, Potomac River Pilots Association, statement ... 65
Cooke, Eileen D., director, Washington office, American Library Association, letter of August 20, 1984 70
Olson, Alan L., National Weather Service Employees Organization, statement 67
Sarbanes, Hon. Paul S., U.S. Senator from Maryland, statement 59
Sciulla, Michael, vice president, Boat Owners Association of the United States, statement 64
Warner, Robert T., vice president, government and public affairs, Aircraft Owners & Pilots Association, statement 60

CONTRACTING OUT CERTAIN NOAA FUNCTIONS

MONDAY, AUGUST 6, 1984

U.S. SENATE,
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION,
NATIONAL OCEAN POLICY STUDY,
Washington, DC.

The hearing commenced, pursuant to notice, at 10:20 a.m., in room SD-124, Dirksen Senate Office Building, Hon. Ted Stevens (vice chairman of the National Ocean Policy Study) presiding.

Staff members assigned to this hearing: Cheryl Coodley, professional staff member and James Drewry, minority staff counsel.

OPENING STATEMENT BY SENATOR STEVENS

Senator STEVENS. Good morning.

The national ocean policy study group is meeting this morning to review the National Oceanic and Atmospheric Administration's [NOAA] plan to contract out certain services now provided by employees of that agency. Of particular interest to us today are the marine and aeronautical chartmaking functions of NOAA, as well as services provided by the Atlantic and Pacific Marine Centers.

NOAA's reviews of these activities are being carried out pursuant to OMB's circular A-76, which sets out procedures to determine whether the Government or the private sector could provide a product or service at the best price. This Government cost-comparison process was first begun in 1955. The circular itself dates back to 1966 and was most recently revised and updated a year ago.

The A-76 process calls for an assessment of which agency activities are inherently governmental and which are commercial in nature. If an activity is determined to be commercial the agency is required to carry out special competitive bidding procedures in which the affected unit of in-house employees are permitted to participate along with private contractors.

I am certain that every member of the study favors contracting when it can be done appropriately, effectively and safely. Our inquiry today will examine if this is the case with respect to NOAA's air and sea navigation programs, all of which presently enjoy a reputation for excellence of service. The oldest of these programs, nautical charting, dates to 1807, when President Jefferson signed the act creating the U.S. Coast Survey.

The public safety and national defense missions of these programs are extremely important. A number of sister agencies, including the FAA, Coast Guard, and Department of Defense—the first time I ever thought of the Department of Defense as a sister

agency—rely on these services, as do a variety of private user groups. While it is important that these programs be conducted in the most cost-effective manner, we must also be concerned about maintaining the quality of service upon which so many depend.

Senator Gorton, would you like to make an opening statement?

OPENING STATEMENT BY SENATOR GORTON

Senator GORTON. Good morning. Today's hearing on the contracting-out activities of NOAA pursuant to OMB circular A-76 will explore a complex and important process which has potential for affecting far more than the agency or positions directly impacted.

Since 1966, circular A-76 has encouraged Federal agencies to contract out their programs and activities if such activities are not inherently governmental in nature, and if they can be performed more efficiently by the private sector. However, it is only in the past several years that NOAA has begun to implement this directive in a more aggressive manner.

The intent of A-76, as I understand it, is to insure that the Federal Government not compete with the private sector, where the private sector has the ability and interest in providing goods and services. At the same time, there are functions of Government which are so intimately related to the public interest or require judgment or discretionary decisionmaking which affects the public, that they are properly the province of Government.

In 1983, NOAA initiated an A-76 review of its Aeronautical Chart Branch and its Marine Chart Branch, the Atlantic Marine Center, the Pacific Marine Center, and a number of other activities, which we will not attempt to cover today. Contracting out of aeronautical and nautical mapping and charting stands to affect the public significantly; for this reason, we will hear today from the Defense Mapping Agency, the Coast Guard, the Federal Aviation Administration, and several representative pilot and boaters associations.

While I support the concept of contracting out commercial activities which are in competition with the private sector, I am deeply concerned that the process of contracting out take into account several important issues. The likely impact on public safety, national security, and on Federal agencies and private users, groups that depend on timely and accurate charts and charting information from NOAA, must be considered by NOAA in its decisionmaking. I welcome this hearing as a part of the Committee's ongoing and continuing oversight of contracting out at NOAA.

Senator STEVENS. Senator Hollings could not be here but I understand we have an opening statement from him which will be included in the record.

[The statement follows:]

OPENING STATEMENT BY SENATOR HOLLINGS

Mr. Chairman, I want to thank you for holding this hearing. The cartographic and marine services that we will be discussing today are not well known to the general public. Yet they have been carried out by the U.S. Government since the 19th century. Ironically, the current question of contracting out chart production was initially presented to Congress over 120 years ago, but the issue then was just the reverse. The marine user groups—the private sector—were urging U.S. governmental

involvement because they viewed chart making as an inherently governmental function.

Today's hearing will give us the chance to explore the risks associated with the A-76 process when it is applied to professional services that are central to a governmental mission.

Aviation and maritime safety are at stake. Our Nation's security is directly affected. In fact, the Defense Mapping Agency has been concerned enough about the national security problems that its Director wrote NOAA in January urging that the activities of the National Ocean Service be exempted altogether from A-76.

As the Federal agency and private sector witnesses at our hearing will say over and over, NOAA's highly trained in-house cartographers produce the finest nautical and aeronautical chart products in the world. I do not understand why NOAA is spending so much time and effort trying to do things different when a high quality and timely product is already being turned out.

Thanks to OMB's budget cutting proposals, the agency has precious little funding to do its essential scientific and technical work. Why doesn't NOAA devote its effort to the real duties of the agency rather than pouring its appropriations into private consulting studies on A-76?

Mr. Chairman, I hope this hearing will provide us with some answers to these questions.

Senator STEVENS. We have a number of witnesses today who are here to help us try to find the answers to these questions. We are going to begin with Mr. John W. Baier, Manager of the Airspace Rules and Aeronautical Information Division of the FAA. And the next witness after that will be Admiral Wojnar of the Coast Guard.

Good morning.

STATEMENT OF JOHN W. BAIER, MANAGER, AIRSPACE RULES AND AERONAUTICAL INFORMATION DIVISION, FEDERAL AVIATION ADMINISTRATION

Mr. BAIER. Good morning, Mr. Chairman. I have a brief statement I would like to read.

Senator STEVENS. Please.

Mr. BAIER. Thank you. Mr. Chairman, I am pleased to be here today to respond to your request that the Federal Aviation Administration discuss the cartographic activities of NOAA's National Ocean Service [NOS] as they relate to FAA safety responsibilities, the day-to-day working relationship between FAA and NOAA charting offices, and the possible effects on aviation safety of NOAA's contracting out all or part of its present in-house activities.

I would like to begin by briefly outlining FAA's authority over aeronautical charts. Section 307 of the Federal Aviation Act of 1958, as amended, charges the Federal Aviation Administrator with the responsibility for ensuring the safety of aircraft and the efficient utilization of the navigable airspace. As part of the powers granted to the Administrator to carry out this mandate, section 307(b)(3) includes the authority "to arrange for the publication of aeronautical maps and charts as necessary for the safe and efficient movement of aircraft in air navigation, utilizing the facilities and assistance of existing agencies of the Government so far as practicable."

FAA has interpreted this authority to mean that the FAA determines the requirements and standards for aeronautical charts and related services to be produced by the National Ocean Survey. In addition, the FAA determines the annual production program and currently funds 42 percent of the total cost of these products.

The term "aeronautical charts" encompasses much more than the common meaning of the word chart. In fact, it includes not only those maps and charts required by pilots to navigate within our system, but also a wide variety of products such as video plates for our terminal radar systems, digital data to construct aeronautical maps for our automated en route systems, and survey data required for the development of instrument approach procedures and safe operation of the air traffic control system.

Aeronautical charts are unique among forms of cartography. They must be extremely accurate because of the unforgiving nature of errors in air navigation. The emphasis on accuracy must be maintained throughout the production process, from the original surveys, and data collection through the printed chart.

The airspace of the United States is a complex, ever-changing system. In a practical sense aeronautical charts inform pilots of the rule and nonrule changes made within the system. Of course, FAA publishes rule changes in the Federal Register, but as you can imagine it would be very difficult to navigate with a set of Federal Registers.

Aeronautical charts depict the rules and other airspace procedures in a format that aids navigation. As such, they serve as a means of silent communication between pilots and controllers, establishing a common frame of reference that eliminates needless radio communications and reduces controller workload.

Charts are periodic in nature. They are completely revised on a cyclical basis, usually every 56 days, in order to accurately reflect current airspace facilities. Chart publication dates control the schedule of implementing changes within the national airspace system and there are approximately 30,000 individual changes per year.

All of the wide variety of public use charts, internal FAA products, and digital data must be compatible with each other. The same data may appear in different forms in several different products and therefore cross checks and editing are essential in the production process.

The FAA relies heavily upon NOS cartographic expertise for the verification of airspace configuration prior to rulemaking. Also, NOS algorithms and computations are used in the design of air traffic control systems and for other similar services.

The basic criterion for aeronautical charts is 100-percent accuracy. This accuracy must be maintained throughout each step of the production process, from the collection of initial data through the final printing. It is a continuous and consistent process involving cross checks, edits, and the dedication of the employees involved. NOS verifies each item to ensure 100-percent accuracy.

NOS is the U.S. authority for the positional accuracies, computations involving datums, projections, and the manipulation of vertical and horizontal control. The data is essential to FAA in carrying out its mission. In addition, this data is required by military and commercial chart producers, NASA, commercial air carriers, avionics equipment manufacturers, and others.

The NOS production activity is an integral component of FAA's real time operations. There is a constant and continuous exchange of information between the agencies at three levels. The FAA's Na-

tional Flight Data Center collects and disseminates the millions of pieces of flight information within the system. These items are coordinated, standardized, and verified by continuous communication between NFDC and NOS.

Our FAA field facilities continuously solicit positional information and computations from NOS and coordinate individual production items such as video plates and the development of instrument approach procedures and digital data for automated systems.

At the headquarters level FAA has NOS verify the positional accuracies of new airspace configurations before they are submitted for the rulemaking process. There is also a continuous exchange at the staff level in the development of specifications, prototype products, changes in production priorities, et cetera.

Mr. Chairman, I am pleased to report that NOAA has recently informed us that they will work closely with us to ensure that FAA's requirements will continue to be met. Accordingly, NOS and FAA have established a team of technical personnel who will identify specific functions that we mutually believe should be considered for cost comparison and potential conversion to contract.

The approach to contracting out will be cautious and deliberate in order to ensure that contractor capabilities can be demonstrated to the full satisfaction of FAA and NOS. Once there is a proven capability additional functions can be phased in to the contracting scheme.

We fully support the plan recently presented by NOAA. We believe that this gradual phasein approach can be accomplished with minimum risk to the public interest by maintaining product integrity and ensuring that safety is not compromised while at the same time meeting NOAA's objectives for enhancing productivity through fair competition for obtaining commercial services from the private sector.

That concludes my prepared statement, Mr. Chairman. At this time I would be pleased to respond to any questions you might have.

Senator STEVENS. What is an algorithm?

Mr. BAIER. That is a formula that is used in determining positional data.

Senator STEVENS. The last part of your statement indicates that you believe that there is an inevitability to this process and that part of these functions are going to be contracted out. Is that really the approach of the agency?

Mr. BAIER. We have not accepted that at this time, sir. We have agreed to a team that will examine different functions within the NOS for potential contracting out. If the capability exists and we are assured that there is reliability and backup and that the system and product can be at the same quality that we have today, then we would consent, I guess, sir.

Senator STEVENS. What is the degree of confidence that is required in these charts? Let us put it this way. Have you had errors in the past that have come into these charts?

Mr. BAIER. Yes, sir, we have.

Senator STEVENS. How frequently?

Mr. BAIER. Well, in recent times the errors are minimal. That is one of the reasons we have built on the quality control. It is kind of

an evolutionary type thing, Mr. Chairman, where, when we do detect an error, we take corrective action.

Part of the editing and cross-checking that we now do is that quality control, and that is one reason we insist on 100 percent quality.

Senator STEVENS. And is part of that quality control the timeliness of information and its availability to the public?

Mr. BAIER. Well, the timeliness of the data is that we have to have a product that is delivered at a set time. Through international agreements and also the implementation of the airspace we have got to ensure that all of the products produced are in the hands of all of the players—the controllers, the pilots, and other users—at the same time, so that we are all playing from the same sheet of music.

So timeliness is very important for all of these products because there is interplay.

Senator STEVENS. Do you know of any nations of the world that do provide this information through the private sector operations?

Mr. BAIER. Yes, sir.

Senator STEVENS. Who does?

Mr. BAIER. Other nations?

Senator STEVENS. Yes.

Mr. BAIER. The smaller nations in the ICAO organization which is the International Civil Aviation Organization—produce what they call aeronautical information publications.

Senator STEVENS. For their own country or for the world?

Mr. BAIER. For their own country.

Senator STEVENS. Have you cross-checked those in terms of accuracy and the timeliness? Has there been any comparison between those functions in other countries that are performed in the private sector and our governmental functions?

Mr. BAIER. I am not sure, Mr. Chairman, if there was a specific study done in that area. I could check and provide that for the record.

[The following information was subsequently received for the record:]

Neither the FAA nor NOS has made such a comparison of charting functions performed in the private sector abroad versus U.S. Government functions. Although the ICAO establishes common standards for civil aeronautical charts and related publications, member nations may file exceptions to these standards based upon their own national interests. Consequently, individual products vary in format, content, and timeliness.

Senator STEVENS. Are there any shortcomings in the current program that you have identified, that the agency has identified?

Mr. BAIER. We have a very good relationship with NOS and historically we have. We are very proud of the products that we have jointly worked to produce. We do have occasions when we need things in a hurry and we have to require overtime from the NOS staff to produce it, but generally we are very pleased with the product and relationship that we have. We have a very good working relationship with all of them.

Senator STEVENS. Would it be fair to say that your agency is the principal user of the information that comes from NOS?

Mr. BAIER. Yes, sir. We fund 42 percent of the total NOS budget for information that we use within the FAA itself. Of course, the products are produced for public use in general aviation and by air carriers.

Senator STEVENS. Were you consulted before the A-76 studies were initiated?

Mr. BAIER. No. We first became aware of this last go-round on the A-76 when it was published in the Federal Register, I believe in March of last year. We made some phone calls to our counterparts in NOS and then subsequently received a letter in April, I believe, that identified the fact that they were and did we have any problem with it.

Senator STEVENS. Let me read back something to you. I heard one thing out of it, and maybe you intended another. "We believe that this gradual phase-in approach can be accomplished with minimum risk to the public interest by maintaining product integrity and ensuring that safety is not compromised while at the same time meeting NOAA's objectives for enhancing productivity through fair competition for obtaining commercial services from the private sector."

Now, as I said, that implied to me that you had accepted the inevitability of the process. Can you tell us what is your understanding of the commitment you have from NOAA concerning this process? Is it a commitment that you are going to have to be satisfied before there is contracting out?

Mr. BAIER. Mr. Chairman, in a meeting on July 23 with management officials from NOAA they agreed with the FAA's position for a phased-in approach, that we would examine each function, determine that the capability exists. If in fact it does look more advantageous to go to contract, we would then proceed with a contract, but at the same time we would ensure that there was in-house capability to back up that contract or until we had full assurance that the capability did exist.

In addition to that, the NOAA representatives assured us that we would be part of any conclusions reached and it would be a joint NOAA-FAA conclusion once it was determined.

Senator STEVENS. So the commitment, as you understand it, is that the in-house capability of both NOS and FAA will be maintained while there is an experiment in the private sector to see if they can produce the same quality and timeliness of product?

Mr. BAIER. Yes, Mr. Chairman. There are many functions within the NOS, particularly in the air chart branch—distribution, reproduction, different products. There are approximately 30 different products that are produced, including IFR charts for high altitude and low altitude, and one of the first ones—I guess we are in concurrence—that we feel we could safely move to is the trade type activities—distribution and reproduction type functions—without any risk to safety.

Once we get into the production of charts themselves, we are saying we want to do that in a phasein-type approach. High altitude instrument charts would be one of the first that we would take a look at and examine to determine if it could be done more cost efficiently by the private sector. We do have contractors that

currently do the high altitude and instrument approach procedures now, Jeppeson for one.

Senator STEVENS. Are there any functions or services in this process that you have indicated to NOAA cannot be contracted out?

Mr. BAIER. Yes, sir. We feel strongly about the services that are provided to the FAA in terms of information provided for our control of aircraft, the digital data that is provided to our en route facilities for constructing their aeronautical maps, what we call plates, video plates for our radars in our terminal facilities which depict the routes, the final approach courses, navigational aides.

The controller uses this as a tool to navigate the aircraft through the system and also to separate aircraft. Those type functions we feel should not be contracted out.

Senator STEVENS. Well, now the FAA provides much of the basic data for those charts, does it not?

Mr. BAIER. Yes, sir.

Senator STEVENS. And you now have computerized systems that you fly your own planes for. You get the data and provide it to NOS, do you not?

Mr. BAIER. Well, Mr. Chairman, if I can run you through a short scenario, we will start out at the facility level and they determine that a new route is required, for instance. They do the processing, the coordination, and develop that package. It is sent to Washington. We send that package to——

Senator STEVENS. "They" being NOAA?

Mr. BAIER. "They" being our FAA facilities. They send it in to Washington for rule action. Any airspace that we acquire, whether it be airways or restricted airspace, requires rule action. We in turn send the coordinates and the information provided at the field level to NOS, and they do a verification of that information.

Once they have verified it—and they actually plot it for us in chart form, they put it on charts with plots—then we send it to the Federal Register under the normal procedures for rule action. We go with a notice of proposed rulemaking, and then a final rule. Once it becomes a final rule, we then produce the data. That airway information is then submitted to our facilities again in digital form so that they can update their computers.

And, Mr. Chairman, I might add they also produce controller charts, which are overhead, the displays that the controller uses as reference for airspace outside of his area in case of an emergency or change of routes. They are unique charts that are produced and tailored strictly for those facilities.

Senator STEVENS. Yes, I have seen those, and those are the ones that require the most up-to-date information on a periodic change basis. They change them almost weekly, do they not?

Mr. BAIER. Yes, sir. But again, Mr. Chairman, we talked earlier about the timeliness and that 56-day cycle. Even our automated systems that produce maps digitally, that is turned on on that 56-day cycle so that what the controller sees on the display and in the overhead corresponds to what the pilot is flying with in the aircraft.

Senator STEVENS. And those are now computerized to the controllers, are they not?

Mr. BAIER. There are some that are computerized, yes, sir. In the 9020 automated system it is put on digitally on a display. However, there are the overhead charts that you said you have seen before.

Senator STEVENS. Senator Gorton, do you have any questions?

Senator GORTON. I suppose my basic question is this: You have listed more or less three areas—one in which you think contracting out is perfectly appropriate; one which you are allowing to be a part of the process; and one which you really want to come from NOS. To what extent does FAA have a veto?

Mr. BAIER. Well, based on our statutory responsibilities I think we have a veto in that we are responsible to provide aeronautical charting for the public and we are also mandated under that act to use the appropriate Federal agency that produces charts, in this case NOS. I guess we have been assured, Senator, in our last meeting with officials from NOS, which was on July 23, that we would be part of the conclusions reached and it would be a joint NOAA-FAA position.

Senator STEVENS. Could you pull those mikes up a little bit, please?

Senator GORTON. Does that mean that unless you are assured that a contractor can produce charts with an accuracy sufficient to ensure proper aviation safety that you will and can be successful at prohibiting contracting out of that service?

Mr. BAIER. I am sure, Senator, that our Administrator or the FAA, under their statutory authority to maintain a safe and efficient system, would take whatever action would be necessary to ensure that safety is maintained in the system.

Senator GORTON. Thank you, Mr. Chairman.

Senator STEVENS. Has anyone discussed the liability factors of these? At the present time it is totally a government function, is it not?

Mr. BAIER. There are some private—like I mentioned earlier, Mr. Chairman, Jeppeson produces charts. However, they are using data that has been verified by NOS, both positional and the route data, but Jeppeson does produce some charts for a select segment of the flying public. Yes, we have discussed liability, to answer your question.

Senator STEVENS. And will there be an assumption of liability clause on the part of the private contractor for errors injected into the system?

Mr. BAIER. Mr. Chairman, I am not in a position to answer that.

Senator STEVENS. I understand NOAA's counsel is here, but let us put it this way. Are you satisfied that from the point of view of the airways safety question that the liability problem has been adequately addressed?

Mr. BAIER. I have got a problem answering that, Mr. Chairman, because we have not really got into determining if a contract or, in fact, was going to produce charts. We are still in a technical group formulating this and examining these areas, and I guess I would have to rely on my counsel or someone else to discuss that.

We are after 100-percent accuracy and, you know, to have somebody have an insurance policy to say: "Well, if he screws up, why forget about it"—I guess we are not in favor of that. We want to

ensure that there is that accuracy built into that contract, if in fact we go that route.

Senator STEVENS. Well, I understand that. But under the Federal procedure there are various acts of Congress that have defined what the liability of the United States is, what we will accept as claims against the United States. Those limitations would not apply to a private contractor, at least not to my knowledge, unless we extended the law to them.

I will discuss it with the general counsel, but I do think that from the point of view of the reputation of FAA in this field, there is an acceptance on the part of the private sector, particularly private pilots, as to the accuracy of the charts they are using that is going to be hard to duplicate by anybody in the private sector, and it is going to lead to a lot of litigation if we are not careful.

Mr. BAIER. Mr. Chairman, when you asked me earlier about products that we felt were inherent, if you will, one of them would be, I would think, the sectional chart, the VFR product which includes an array of rule information, TCA's, terminal control areas, and restricted air space and so forth. And a VFR pilot, if you will, a general aviation pilot relies heavily on that product and also its accuracy.

Senator STEVENS. They are pilots notes and they are available through the FAA offices. I think the whole spectrum of services that are there, are there for not just the safety of the pilots or the functioning of the system, but for the safety of the public in general.

Mr. BAIER. Yes, sir.

Senator STEVENS. As we have these airports in very crowded metropolitan centers and adjacent to highways, I really think that the cost factor is just not a cost factor that can be attributed to those people involved in the airways system. But then we will go into that later.

I appreciate your courtesy in appearing and answering our questions.

Mr. BAIER. Thank you, Mr. Chairman.

[The following information was subsequently received for the record:]

QUESTIONS OF THE COMMITTEE AND THE ANSWERS THERETO

Question. The FAA makes a strong point about the need for 100 percent accuracy in aeronautical charts. The Defense Mapping Agency (DMA) witness has testified that in its experience with contractors, from 10 to 30 percent of the contractor products were rejected for errors or lack of timeliness.

In view of DMA's experience, do you believe there will be safety risks if all of NOAA's Visual Charts, Enroute Charts, and Instrument Approach Procedure Charts are contracted out under A-76?

Answer. The FAA requirement for 100 percent accuracy of aeronautical charts is inherent in the FAA's responsibility to maintain a safe and efficient National Airspace System (NAS). We are aware of DMA contracting experience; and as indicated by Mr. Ayers in his testimony, the rate of contractor error is directly proportional to the level of difficulty of the contract work. It is significant that DMA has sufficient in-house capability to correct and/or recompile contractor errors. The FAA can avoid the potential for such safety risks, and thereby satisfy its statutory safety mandate only by careful planning and controls over production quality and related matters.

Examination of an Arthur Young Study of contracting out reveals areas where the safety factor could be at risk without careful attention:

1. Eliminating cross checking, introducing work sample edits, and dispersing the responsibility for accuracy.

2. No arrangement for an in-house fallback capability in the event of contractor default, bankruptcy, strike, etc.

We expect to mutually resolve these issues by meetings with NOAA.

Question. Isn't it true that if all 82 positions involved in these three categories of charts are contracted out, OMB Circular A-76 allows only four Federal employees to be retained in-house to perform both quality assurance and contract management? If so, how would FAA's 100 percent accuracy goal be achieved for these categories of aeronautical charts?

Answer. The actual numbers involved in the Arthur Young/NOAA proposals vary slightly with the information we have available to us. We have received three "Most Efficient Core Organization" (MECO) proposals from NOS. The numbers in the question appear to be extracted from Arthur Young's MECO-2 and appear to coincide with our information.

While the adequacy of NOS staff levels to assure 100 percent accuracy of contract aeronautical chart functions is primarily a matter to be addressed by NOS, the FAA should and will be a primary participant in making this judgment, in order to fulfill FAA's safety mandate. As an initial reaction, it appears unlikely that four individuals could effectively police the accuracy of the work product of 82 individuals, along with contract management and other tasks. Again, we expect to meet with NOAA on this subject.

Question. Have NOAA and FAA agreed in writing on the nature of FAA's involvement in the A-76 process and on NOAA's commitments to FAA as to what will not be done under A-76? If not, will such an agreement be concluded soon?

Answer. We have received the oral assurance of NOAA officials that FAA will fully participate in all decisions concerning A-76 contracting out of aeronautical charts. We have no plans at this time for developing a written agreement.

Question. NOAA has apparently taken the position that chart products for exclusive FAA use are inherently governmental and will not be subject to A-76 cost comparison. Does FAA retain an interest in the A-76 process as it applies to aeronautical chart products not used exclusively by FAA? If so, which products are of special interest and why?

Answer. Yes, FAA retains an interest in aeronautical chart products beyond those used exclusively by FAA, because the development of aeronautical charting requirements and standards are within the FAA's statutory responsibilities. All of the "public use" and "special FAA use" products are therefore of continuing, critical importance to the FAA. For example the NOS IFR, VFR and IAP products are official presentations of Federal rules, and they can be considered to be part of the Federal responsibility to control airspace.

Question. An August 7 Washington Times article reported that the NOAA contractor for chart distribution failed to distribute radar screen overlays to FAA air controllers at the same time it sent updated charts to pilots. Did the alleged distribution error take place and was there any significant safety risk as a result? In light of the FAA's testimony that radar screen overlays should be retained in-house, does FAA also oppose contracting of the distribution of the overlays?

Answer. The Washington Times article confused the Translucent Sectional Charts with the Radar Video Maps which they referred to as radar screen overlays. FAA did experience late or non-delivery of translucent Sectional Charts and Controller Charts at several of our Air Route Traffic Control Centers (ARTCC's) after the new NOAA distribution contractor took over the function. This late delivery did not represent a significant safety risk because FAA facilities compensate for the absence of these charts by using other sources of information. It did cause an inconvenience and continued late delivery is unacceptable to FAA. We do not oppose the contracting of distribution as long as NOAA exercises prudent control over its contractor.

Both the translucent sectional charts and controller charts are issued concurrently with the public use products used to the pilots. These charts are printed on translucent paper and are back lighted for reference by air traffic controllers. They are an added safety, efficiency, and convenience feature. The essence of the data contained in these charts is also provided in digital form to the ARTCC's and is entered into the air traffic control computer system.

Question. The NOAA witness testified that the airline industry depends on a private contractor to provide its chart products, which "are neither verified nor certified by NOAA." This is apparently a reference to Jeppesen charts. FAA's testimony, on the other hand, pointed out that Jeppesen charts use data verified by NOAA.

Could you please outline the production steps involved in a Jeppesen chart, from acquisition of data to the printing of the final chart, and indicate what role NOAA has in each step?

Answer. While this question concerns Jeppesen and NOAA practices and might better be answered by them, we can provide information we are aware of as follows:

The Jeppesen Company uses data verified by NOS, particularly positional data, although it may also include data in its products that are not provided by the government.

All FAA rulemaking actions are validated by NOS before they are published in the Federal Register. Jeppesen uses the Federal Register as source material.

The FAA's National Flight Date Center (NDFC) issues the National Flight Data Digest (NFDD) that contains the collected flight information acquired by NFDC. The NFDD is provided free of charge to all aeronautical chart producers, and positional data that appears in the NFDD are validated by NOS. Jeppesen uses the NFDD.

In addition, Jeppesen maintains a liaison office in Washington, D.C., and its representative makes daily contacts with the NFDC to clarify problems and resolve differences in data. The Jeppesen production facility in Denver makes frequent phone contacts with NOS production personnel to resolve data differences, etc. In the past, FAA/NOS has provided Jeppesen with data tapes.

The Jeppesen Company has been in the business of providing U.S. Civil aeronautical charts for 50 years. The company began at approximately the same time that the Federal government began producing charts. Its reputation for quality products is well established in the aviation community.

Under the Interagency Air Cartographic Committee (IACC), federal products must include the requirements of military, commercial and general aviation as well as the special requirements of the U.S. Departments of Energy, Agriculture, Interior, etc. All of these varied requirements must be merged into consolidated products issued by the government. As a commercial company, Jeppesen can target its products to more specialized markets, air carriers and corporate aviation, for example. It is not bound by IACC restrictions and can tailor its products to accommodate the users' desires.

Senator STEVENS. Now we will have Rear Admiral Wojnar, who is the Chief of the Office of Navigation concerning contracting for NOAA chart services. Admiral, good morning.

I am having a little trouble hearing up here. I do not know if it is because the doors are open. If you will pull the microphone up, that would be fine.

STATEMENT OF REAR ADM. THEODORE J. WOJNAR, CHIEF, OFFICE OF NAVIGATION, U.S. COAST GUARD, ACCOMPANIED BY COMDR. GAYLEN SIDALL, CHIEF, NAVIGATION RULES AND INFORMATION BRANCH

Admiral WOJNAR. Good morning, Mr. Chairman and members of the committee. I am Rear Adm. Ted Wojnar, Chief of the Office of Navigation, U.S. Coast Guard. I have with me Comdr. Gaylen Sidall, who is Chief of our Navigation Rules and Information Branch.

I am pleased to be here this morning to provide you with the views of the Coast Guard on the significant role, accurate, current and readily available nautical charts play in the maintenance of safe maritime transportation in our U.S. waters.

High quality nautical charts are fundamental to safe navigation. Indeed, the chart itself is one of the most important navigational aids available to the mariner. It identifies and locates the aids to navigation he must use to fix his position and to travel a safe course. The truth of that is axiomatic to mariners everywhere, and most certainly to those of us in the Coast Guard.

We in the Coast Guard are vitally aware of how indispensible accurate, high quality, timely and easily-corrected charts are in car-

rying out our missions, in meeting our responsibilities for safety of life and property at sea, for establishing and maintaining buoys and other aids to navigation, for the safety of navigation in our harbors and traffic routing systems, and for facilitating the flow of commerce on our waterways.

Reliable and timely chartmaking and professional data-gathering services have made U.S. charts a standard for other nations to emulate. That U.S. charts are the best in the world is very important to us not only in meeting the responsibilities previously mentioned but in the safe navigation of our own Coast Guard ships and boats and especially in our buoy-tending operations.

The Port and Tanker Safety Act of 1978 states in part "Congress finds and declares that navigation and vessel safety are matters of major national importance." In keeping with this mandate, the Coast Guard requires that all ships entering our territorial waters have on board current and corrected U.S. charts or charts of other nations, provided that they are equivalent in quality and content to ours. This makes the U.S. chart the standard by which all others are judged.

The International Convention on Safety of Life at Sea, to which the United States is signatory requires all commercial vessels to carry up-to-date charts. The Coast Guard has promulgated regulations to ensure that vessels have sufficient and up-to-date charts and we inspect transiting vessels to ensure their compliance.

The nautical chart supplies the mariner with a variety of critical graphic and printed information and has no parallel with maps that depict highways and geological features. If a mariner uses a chart which is faulty, which does not properly mark hazards, and which does not clearly depict aids to navigation, he places himself, his ship, and the environment in jeopardy. Conditions may not permit him to merely stop his vessel to avoid a grounding or a collision.

An example of the importance of accurate surveys and charting is seen in the grounding of an Esso tanker in the Red Sea in May 1983 while in an established traffic separation lane that had not been accurately surveyed prior to adjusting the scheme.

Ensuring the accuracy of a nautical chart is a process that begins when the chart is initially published and continues until the chart is so substantially changed that a new edition is required. As source material is reviewed and new data analyzed, each chart is evaluated and corrected from information furnished to NOAA. The acquisition of this information involves complex coordination between the Coast Guard and NOAA headquarters of information which is provided from our respective field units.

The Coast Guard furnishes charting information on the establishment or disestablishment of aids, traffic separation schemes, safety fairways, anchorage, prohibited areas, and boundary lines and lines of demarcation, while NOAA information relates to hydrography and cartography.

The correct positioning of our aids to navigation is dependent upon how accurately the nearby landmarks and hydrography are reflected on the applicable NOAA chart which is used by our buoy tenders.

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It is an additional Coast Guard responsibility to publish the information developed in local notices to mariners. These are either printed weekly or broadcast immediately by radio if the information is urgently needed by the mariner. Upon receipt of these notices the mariner enters the necessary corrections for the charts he is using or expecting to use.

The Coast Guard has been and will continue to be a major contributor of navigational information that is used in preparing and maintaining charts for the navigable waters of the United States.

I have tried to provide you with some feeling for why we in the Coast Guard have a vital interest in charts, why there is a strong need for all segments of the maritime community to have accurate, high quality nautical charts, why they are essential to maintain the safety of vessels navigating our waters, and why the safety of those waters and our ports depends upon their quality, timeliness of data, and ready availability.

Recently a NOAA official briefed me on the subject of NOAA's plans to contract out charting services. Just as the FAA recently stated, they are working with NOAA to ensure the charting needs of aviators are being satisfied, we too in the Coast Guard will continue to work closely with NOAA to ensure that the interests of maritime safety and the Coast Guard requirements are being met.

Any changes made to the present charting system must ensure that up to date and accurate nautical charts remain available to the mariner and that the system used to obtain the required data and quickly translate it into a usable form for use by the ship's navigator is totally professional and reliable.

That concludes my formal statement. If you have any questions, sir, I would be more than happy to try to answer them.

Senator STEVENS. This time I will go to Senator Gorton first. Do you have some questions, Senator?

Senator GORTON. Would you describe the day-to-day relationship between NOAA's Marine Chart Branch and the Coast Guard in connection with your responsibility for safety of navigation?

Admiral WOJNAR. Our relations deal in two areas, sir, one here in headquarters and one in the field. The people in the field issue the local notice to mariners at a district, for example, the 5th Coast Guard District in Norfolk, VA. In issuing a local notice, they would then pass that information on to NOAA headquarters.

We here in headquarters are working closely with NOAA to keep an eye on advances in the charting systems. We have talked and now have a liaison officer assigned to my office so that we can keep in touch regularly.

Senator GORTON. So by and large you are supplying NOAA with information that you learn from your day-to-day operations?

Admiral WOJNAR. Yes, on the part of aids to navigation that we maintain, we provide the information to NOAA and they chart it.

Senator GORTON. Do you get any significant amount of information from NOAA with respect to your alerting mariners to potential navigational problems, or, generally speaking, are you getting that information and then passing it on to them?

Admiral WOJNAR. Again, sir, in two areas, one, we are responsible to see that the civil user, the foreign visitor to our shores on ships, has accurate charts. We rely on NOAA to give us those

charts and we inspect those vessels to see that the charts are up to date.

NOAA provides surveying information and hydrography to us. They verify our positions and work with our people in the field to be sure that the aids to navigation are positioned properly. If we position a buoy, for example, we must have a landmark in order to be able to reference that buoy. They would see that the landmark is properly surveyed and charted.

Senator GORTON. When you refer to U.S. charts as the best in the world and the standard for everyone else, you are speaking of charts produced by NOAA, are you not?

Admiral WOJNAR. Yes, sir, and without prejudice, sir.

Senator GORTON. By and large where do you get the information that results in notices to mariners?

Admiral WOJNAR. Any of the users of the waterway. It could be a fisherman. It could be a visitor to our shores. It could be one of our pilots. It could be our people who are going out and always checking. We have a waterways analysis and management system which requires our people to go out and check the buoys, check the aids. So any of these services would be providing us with information on the aids out there.

Senator GORTON. Any shortcomings in the present NOAA program as far as you are concerned?

Admiral WOJNAR. No, sir, I do not see any. We have a good relationship here in headquarters, and we have a good relationship in the field. I could not ask for anything better. They are professional. I give them an A-plus.

Senator GORTON. And the information that you get from them comes as promptly and rapidly as you need it?

Admiral WOJNAR. Yes, sir, and we are looking to bring electronics into the system in order to keep ahead of the game, so maybe 3 or 4 years from now we will be on top of that, too.

Senator GORTON. So as far as you are concerned there is a fairly heavy burden of proof on the part of anyone who wants to change that system.

Admiral WOJNAR. Yes, sir, I would think so.

Senator GORTON. Thank you, Mr. Chairman.

Senator STEVENS. Thank you. I seem to have lost some notes I made for myself on the way down to the office here this morning.

I have some problems concerning the reliability factor as far as these charts are concerned. Let me ask you this. In your consultations with NOAA, have you agreed to essentially the same process that FAA has?

Admiral WOJNAR. No, sir. We are a provider of information on aids to navigation, more so than the FAA. We would see that the people who are using the charts which NOAA provides, which are considered to be very accurate are carried by the mariner coming to our shores; he would have proper and current charts. The information on it would be information that NOAA would verify, as opposed to the Coast Guard.

Senator STEVENS. What I am saying is we just heard about the FAA and the process that they are going through in terms of trying to determine whether to follow through the procedures of

A-76. Do you have any assurance that you will be involved in that decisionmaking process of NOAA?

Admiral WOJNAR. We were visited by a NOAA official and I believe that we will be working with NOAA on that through our liaison officer. But we have not discussed what Senator Gorton talked about in the form of a veto power. No, sir, we have not even brought that up.

From my position, I would expect the terms of the contract would be something we would want to look at very closely to see that the product we receive is satisfactory for the mariner.

Senator STEVENS. We have had a considerable number of inquiries—I am going to put some of them in the record—from pilots of Alaska who are disturbed at the prospect that these charts would be prepared by the private sector. As I understand it, the first concept that is involved here is that of reproduction and distribution by the private sector. Have you been involved in talks on that, about that function of preparing the charts and distributing them—the difference between the two?

Admiral WOJNAR. No, sir. We have touched on it only in that meeting with the NOAA officials, but not in any depth at all.

Senator STEVENS. There is, however, a very vital national interest, as expressed by past legislation, I think you have pointed out already, that goes beyond just the users of these charts. You have environmental duties under the Coast Guard, correct? You have various functions to finance the cleanup of oilspills or the removal of hazards to navigation.

You would undertake that, would you not, if there was a vessel that sank in a ship channel? That would be your responsibility to notify the Corps of Engineers and they would remove the obstacle to navigation; would they not?

Admiral WOJNAR. Removal of the obstacle to navigation becomes something that gets tied in with the Corps of Engineers, but if you talk about the oilspill and all that is going on, for example, in the Gulf of Mexico right now, yes, sir, the Coast Guard would be responsible.

Senator STEVENS. Any other questions, Slade?

Senator GORTON. No, Mr. Chairman.

Senator STEVENS. Thank you very much, sir.

Our next witness is Lawrence Ayers, Deputy Director of Management and Technology, the Defense Mapping Agency. He is at the U.S. Naval Observatory here in Washington.

Good morning, Mr. Ayers.

STATEMENT OF LAWRENCE F. AYERS, DEPUTY DIRECTOR, MANAGEMENT AND TECHNOLOGY, DEFENSE MAPPING AGENCY, ACCOMPANIED BY ROBERT J. BEATON, ASSOCIATE DEPUTY DIRECTOR, HYDROGRAPHY; AND EDWARD J. OBLOY, GENERAL COUNSEL

Mr. AYERS. Good morning, Mr. Chairman. Can you hear me, sir?

First I would like to say I am from the sister agency, the Department of Defense.

Senator STEVENS. Well, we just talked to your brother, so we will see what the sisters think.

Mr. AYERS. Sir, I am the civilian Deputy Director for the Defense Mapping Agency [DMA]. On my left is our chief hydrographer, Mr. Robert Beaton, and on my right this is Mr. Edward Obloy, our chief counsel. I submitted for the record a long statement and I plan to summarize what I believe are the highlights of that statement.

We appreciate the opportunity to appear before this committee. The subject at hand is of high interest to the Department of Defense because the military depends heavily, as I will show in a few minutes, on the products that are produced by NOAA.

I will briefly discuss for you how we are dependent on the NOAA products and also will highlight for you our experience in dealing with the private sector in producing products, both navigation products and services.

First, DMA relies totally on the civil agencies, namely NOAA, U.S. Geological Survey, FAA, and the Coast Guard, to satisfy DOD requirements in the territorial areas of the United States. To illustrate this point, we purchase 98 percent of NOAA line items, and we use 48 percent of their total annual output. So we are by far their largest customer.

With the Geological Survey likewise we purchase topographic maps for training here in the United States and for defense of the United States. With the Coast Guard and with FAA, their data is vital to navigation and safety of military aircraft and military ships.

DMA and these agencies annually meet with the Canadian Government as part of the joint defense of North America. When that defense plan is laid out the maps, charts, data, and services in support of that defense plan are identified and assigned to the respective agencies in each country. In the United States, NOAA, USGS, FAA, and the USCG are the primary producers of the products that support that defense plan.

Now DMA concentrates its efforts on the mapping, charting, and geophysical data outside the United States. To give you a feel for that, there are about 40 million square nautical miles of land surface above the water, and about 100 million below the water. The United States is approximately 5 million, so our job is to collect the rest of the world and have it to support the many weapons and military operations worldwide.

There is no weapon or no military force in our inventory that can be deployed or function without the maps and the digital data that goes into those weapons from DMA. In order to carry out that function we have 9,300 people. Our annual budget is $600 million. Sixty percent of our work force are professionals and we use the best technology. In fact, we have the best technology in the world in dealing in this area.

The sophisticated equipments are very expensive. It is estimated that the worth of our inventory of software and hardware is about $1.7 billion. Our annual output is about 40 million copies of maps and charts and about 5 million square nautical miles of the Earth's surface put in digital form every year.

Now the primary way that we do this is through in-house capability using contractors in the private sector and purchasing and exchanging data with foreign countries. DMA maintains an in-

house capability to perform all functions—for the production to meet the crisis, to support military readiness and to assure safety to navigation.

We have determined with our long-term experience in contracting that several phases of map and chart production lend themselves to contracting. These would include what we call negatives engraving, posting changes—not identifying but posting changes to existing charts—converting foreign charts to DMA specifications, and digitizing existing charts. The sophisticated equipment is not required to do these functions.

Now we have also determined areas that do not lend themselves to contracting and these are in the high technology, high complex areas—tasks that occur in making new charts. Interpreting data from multiple sources require experienced cartographic judgment and sophisticated equipments. This is difficult for the private sector to maintain and we need and use the private sector and they have served us well. But the important point is to use them where they perform well.

In summary, we rely on the civil government agencies to provide DOD the critical products we need over the United States. Our success in contracting has been mixed. It has been very good in the less complex work areas and it has been difficult in the more complex areas.

We contract out only portions of chart work with contractors, and we do 100 percent edit because we are responsible for the product. DMA has taken a measured approach to contracting. We ensure that we have an in-house core capability of well-trained people prepared to do all of the functions. We are accountable for the quality and timeliness of the products that we use and, Mr. Chairman, I would add my comment to the others by saying currently in terms of quality of the products being produced by NOAA they are outstanding.

Thank you, Mr. Chairman.

Senator STEVENS. Well, how do your responsibilities really differ from the NOAA responsibilities as far as their charts are concerned? You do not overlap theirs here in the United States?

Mr. AYERS. No, sir. We identify our requirements to NOAA and we purchase products from them.

Senator STEVENS. So that NOAA is charting the United States and its airways and its waters and you are charting the rest of the world.

Mr. AYERS. In essence, that is it.

Senator STEVENS. And how much in terms of your annual budget have you contracted out?

Mr. AYERS. Well, right now over a 3-year period we are contracting $50 million.

Senator STEVENS. And what is your budget in that 3-year period, $1.8 billion?

Mr. AYERS. Yes, sir; approximately.

Senator STEVENS. Have you been approached by OMB to initiate more contracting out in your function?

Mr. AYERS. No, sir. We have identified—under A–76 the military mapping has been exempt and we are using contractors as a princi-

pal add-on in capabilities where they can supplement our capability. We are not functioning under A–76.

Senator STEVENS. Well, the sisters are doing pretty good, then, I would say.

Slade, do you have any questions?

Senator GORTON. Do you think that a decision to contract out all or most of NOAA's chartmaking functions to the private sector would raise any national security questions?

Mr. AYERS. Yes. I think any degradation of the current output of NOAA's charts in terms of quality, quantity, and timeliness would have a severe consequence on the defense of the United States.

Senator GORTON. In your experience with contracting out, how important is it to specify the standard operating procedures in the RFP in the contract as a method for ensuring high quality and timely production?

Mr. AYERS. It is absolutely essential, sir.

Senator GORTON. Some have argued that NOAA could use DMA's standard operating procedures instead of developing its own standards and specifications. Do you agree that DMA's procedures would provide the necessary assurance for NOAA's nautical and aeronautical chart products?

Mr. AYERS. No, sir. You can take a page-by-page comparison. There are many things in our standards and processes that are similar, but there are some that are different. A good case in point is our standards for foreign charts have meters. It has military grids on it. It has different name types. We must meet foreign standards, which the United States is in the process of changing.

So the point is no, you cannot just take our book and give it to a contractor. You would have to modify it to the processes and standards being used by NOAA.

Senator GORTON. In your testimony you certainly gave some helpful insights as to your experience in contracting. Is it fair to conclude that you have never contracted an entire function but rather the less complex, easy to check aspects of particular functions?

Mr. AYERS. That is correct, sir.

Senator GORTON. Explain to me, if you will, the meaning of the phrase "cartographic license."

Mr. AYERS. I could give you a couple of examples. That is the best way to describe it. In the area of land mapping or aeronautical mapping where you have a river, like at Harper's Ferry, a river, a railroad, a highway, a footpath, a canal, and several other items all going through a very narrow area, if you portrayed them accurately on the map they would all fall on top of each other and it would not be readable.

The cartographer must make a determination based on the type of product he is producing. If it is aeronautical it might be that the road and railroad are more important and he would slide the canal and the footpath off to one side. For a soldier on the ground, it might be more important for the footpath.

So that is an example of what is used by cartographic license. It comes from experience and knowledge of what the product is it is producing.

In the area of nautical charts we get many soundings and from those soundings one must interpret as best they can the exact shape of the ocean floor. We have hydrographers, such as Mr. Beaton, with many years of experience on board ship and knowledge of the ocean floor and its characteristics, and from those, the data that is available, makes an interpretation of what is down there. That is what we call cartographic license.

Senator GORTON. Thank you. Have you retained a core capability for evaluating your contractors' work even where you have contracted out a particular item?

Mr. AYERS. We have a capability of evaluating the contractor's capability. We have not contracted out any total function, but we have a capability of evaluating.

Senator GORTON. So do you do that? Do you cross-check their work?

Mr. AYERS. 100 percent. This goes back to the statement that I made earlier, Senator. We are accountable for that product. When we receive it from the contractor, it is ours. The Government has bought it and we are accountable for it.

Senator GORTON. How does the quality of the work performed by the contractors compare with the quality of work of your own personnel?

Mr. AYERS. Well, in a broad sense I think I identified the fact that they do very well, extremely well, in the less complex areas. We have made some attempts to get them involved in the most complex areas and a statistic we have put together shows that depending upon the complexity of the work it ranges from 10 percent send back either because of timeliness, being late, or the work had to be redone, in the less complex, and approaches 30 percent in the more complex areas.

And that would compare to less than 5 percent, in the 1 to 3 percent, in the in-house capability.

Senator GORTON. Do you believe that there is an adequate private sector capability in nautical cartography sufficient to provide for an open and competitive contracting process for services presently performed by the Aeronautical and Marine Chart Branch and related offices within NOAA?

Mr. AYERS. In our experience in the solicitations that we have put out, we have never failed to find sufficient contractors to proceed on with the contract. So the answer I think would be yes.

Senator GORTON. NOAA launched its A-76 studies of the aeronautical charting division in 1983. Did policy level and NOAA officials solicit DMA comments before initiating the study and what efforts has it taken to consult with DMA since?

Mr. AYERS. We became aware of their consideration when they approached us at the information level on our experience in contracting. It has only been recently that we have been brought in on the policy-level decisions.

Senator GORTON. Have these recent discussions or decisions satisfied all of your concerns about the adequate protection of the national security interests?

Mr. AYERS. Well, we have been advised of their approach in terms of the areas that they have identified to be considered under A-76, and we have been advised—this is in the nautical chart

area—of what they have identified as being inherently Government. And it seems to be a reasonable approach to us at this point.

I might add that in the approach that they have identified and in the production output they are proposing an annual rate of around 350 charts a year, and that is somewhat down from the 450. We have talked to them in terms of any savings that would come about should be, at least in our estimate, plowed back into the efforts to maintain the 450 chart annual rate.

Senator GORTON. So you have ongoing concerns which you wish to share with them as this process goes on?

Mr. AYERS. We have ongoing discussions with them and they have been very helpful in working with us.

Senator GORTON. Thank you, Mr. Chairman.

Senator STEVENS. Thank you.

How did you identify the areas that you have already agreed to contract out in Defense, from your work in Defense?

Mr. AYERS. How did we identify those?

Senator STEVENS. Yes.

Mr. AYERS. Well, it started out we used to do it all in-house, and as defense needs expanded it seemed obvious to us that there were areas in the private sector that rather than increase the in-house Government manpower that we should start utilizing.

A case in point was that as part of national defense we identified presses that were in the private sector that we could use and commandeer as part of a mobilization. Then we approached them on doing what we call overflow printing. Subsequent to that it appeared that the negative engraving, once you have compiled a chart competely and checked that you are doing the artwork, and there are companies that have done that.

And so we approached that and we were very pleased with the results that we got from the private sector. We have spent about 25 years dealing with posting changes in the flight information publication and we have had very good success. We have learned how to work with the contractors. We have learned how to have the checks and audits to make sure that data was accurate. So we have sort of grown into it slowly and we have made some attempts to get into the complex areas, particularly when defense needs suddenly increased.

We had less than desired results. They could not come up as fast, the error rates were high, and we backed away from that. So we have been through an experience base with the idea of trying to maintain an in-house capability but to make maximum use of the private sector where they do well for us.

Senator STEVENS. Did any of that come about through A–76 procedures?

Mr. AYERS. No, sir.

Senator STEVENS. And as far as your agency is concerned you do not have any plans to expand that type of contracting out at the present time?

Mr. AYERS. We are looking at it in the support areas, such as mail room facilities, but not in production.

Senator STEVENS. I am a little concerned about the one comment you made. It sort of implies that Defense really reached out into the private sector to a certain extent to assure that there would in

fact be a portion of the civilian sector that could reinforce DOD in the event of an emergency. Is that right?

Mr. AYERS. We only did that in the printing area. Our five-color printers, presses, we have only, I think, five or six. NOAA has a couple. USGS has a couple. And that is the total capability in the United States. So obviously we were looking at alternatives should something happen to our presses. We just wanted to have an inventory and see what was available.

And back in the Vietnam era and even back in Korea when we had a great surge of printing the private sector was there and we called upon them and they supported us and were extremely good.

Senator STEVENS. That was basically reproduction?

Mr. AYERS. Yes, sir.

Senator STEVENS. Thank you very much. We appreciate your assistance.

Do you have any further questions, Slade?

Senator GORTON. No.

Senator STEVENS. Thank you very much.

[The statement follows:]

STATEMENT OF LAWRENCE F. AYERS, DEPUTY DIRECTOR, MANAGEMENT AND TECHNOLOGY, DEFENSE MAPPING AGENCY

Mr. Chairman and Members of the Study: I am Lawrence F. Ayers, Deputy Director, Management and Technology, Defense Mapping Agency (DMA), and accompanying me today are Robert J. Beaton, Associate Deputy Director, Hydrography, and Edward J. Obloy, General Counsel. We appreciate the opportunity to appear before you and comment on the cartographic activities of the National Oceanic and Atmospheric Administration (NOAA) and the importance of those activities to national security and safe military aviation and marine navigation. This subject is of keen interest to the Department of Defense because of our dependence on the products which NOAA now produces for national defense purposes. My approach to this issue will be to share with you our experiences in relying on commercial contractors to provide Mapping, Charting and Geodetic (MC&G) services.

BACKGROUND

The Defense Mapping Agency is one of the largest Defense Agencies with approximately 9,300 people stationed in some 64 locations throughout the world. Our Fiscal Year (FY) 1984 operating budget is in excess of 600 million dollars. In addition to the 40 million copies of maps and charts produced annually, DMA produces digital data for strategic and tactical weapons systems to support precision in their launch and navigation to targets. We provide MC&G data to the Army, Navy, Air Force, Coast Guard and civil agencies. Additionally, we satisfy a statutory responsibility by disseminating worldwide nautical charts and publications to the Merchant Marine and navigators generally.

REQUIREMENTS

DMA validates the requirements and priorities for worldwide MC&G products. DMA production is in response to these requirements and, in particular, to meet weapons system operational and force deployment dates. Source material for this production is gathered by many methods. An important method is through international cooperation. DMA maintains cooperative arrangements with 70 countries to secure data and products which we would otherwise not be able to obtain.

Primarily, DMA satisfies its requirements in the following three ways:

a. By using our in-house capability of people and equipment.

b. By contracting to the private sector for portions of DMA's MC&G production.

c. By purchasing from or exchanging products with other U.S. and foreign Government agencies.

DMA PRODUCTION CAPABILITIES

Regarding DMA's in-house capabilities, we have highly trained professional people and sophisticated equipment to produce our products and services. Our equipment is the finest in the world and represents the state-of-the-art in many areas. This equipment is necessary to produce the data needed to meet the stringent accuracy and time-sensitive requirements for many of the weapons systems which we support. To further improve capabilities, DMA has recently embarked on an extensive modernization program to develop a completely digital production system by the mid 1990's. This program was Congressionally mandated and is necessary if DMA is to continue to meet user requirements in the future.

DMA depends on the private sector for some portions of the MC&G production process. Reliance on contracting for aeronautical, nautical, topographic and geodetic products is increasing. Currently, we are administering $50.8M of commercial contracts for MC&G products and services. This total dollar amount represents appropriations covering FY 80–84. These contracts help to supplement our in-house capability in areas where the functions are labor intensive and sophisticated equipments are not required.

DMA/CIVIL AGENCY RELATIONSHIPS

DMA relies on NOAA, United States Geological Survey (USGS), Federal Aviation Administration (FAA), the Coast Guard and other civil agencies to satisfy DoD requirements in the United States and its territories.

The DMA–NOAA working relationship can be traced back to 1866. Currently, we are obtaining vital nautical, aeronautical and geodetic products from NOAA for DoD use. To illustrate the importance of this relationship, DMA purchases 98 percent of NOAA's chart and publication line items representing over 48 percent of its total annual production. In FY 1983, DMA spent a total of $2.9M to purchase products from NOAA. These products have always been timely and are known throughout the world for their quality.

DMA has had a long and active relationship with the U.S. Coast Guard. DMA prepares and publishes jointly with NOAA and the Coast Guard, the marine navigational publication, Notice to Mariners, which is used weekly for updating the latest editions of nautical charts and nautical publications. Approximately ten percent of the information in the DMA Notice to Mariners is originated by the Coast Guard. The DoD also depends on short range navigational warnings for the coastal waters of the U.S. promulgated and broadcasted by the Coast Guard.

DMA relies on the USGS to satisfy its requirements for domestic mapping. The USGS produces military maps at a scale of 1:50,000 which are used by the DoD for training, weapons system testing and ultimately for the defense of the country. Additionally, they will be providing DMA with marine gravity survey data to support the Trident System.

The relationship between DMA and FAA is critical to safe air navigation. DMA is required to furnish charts and publications related to planned military training operations in U.S. air space. This requires DMA to distribute over 200,000 individual items annually to more than 900 FAA accounts. Also DoD FLIPS are distributed to ensure that FAA air traffic controllers are cognizant of DoD flight procedures. DMA stocks 82 individual FAA publications for use by the DoD and we exchange other critical information necessary for safe air navigation on a day-to-day basis.

There are additional links between the civil mapping agencies and DMA. In the DoD Master Mobilization Plan, through joint regulations between the Department of Defense and the Department of Commerce, NOAA personnel and facilities serve as a primary resource for DMA in times of national emergency. Additionally, the United States and Canada have plans for the defense of North America. U.S. mapping agencies, e.g., DMA, USGS, FAA and NOAA meet annually with the Canadian military and civil mapping agencies to review, coordinate and assign for production the required maps, charts and geodetic data to support these plans. The U.S. civil agencies perform a vital service in discharging this responsibility.

PRIVATE-SECTOR CONTRACTING

Several years ago DMA began a significant transition. Our role of producing only paper map and chart products changed to one which includes supplying cartographic data in digital form to support weapons systems. In this new environment, many of our map and chart requirements increased, and we were faced with additional requirements to produce digital data as well. To overcome shortfalls of in-house resources we turned to the private sector for assistance.

We determined that several phases of map and chart production lend themselves very well to private sector contracting. After selection and evaluation of source material by DMA, final compilation and color separation are tasks which we have contracted to commercial companies.

DMA's experience in contracting for MC&G products and services is varied. High quality gravity survey data has been provided by contractors at reasonable prices. Commercial contracting for aeronautical products such as Flight Information Data and Publications (FLIPS) has also been successful. FLIPS, which provide the user with vital air navigational information, are published as often as every 28 days. We have been successfully contracting the scribing, printing and distribution of FLIPS for over 25 years. However, our experience with contracting for compilation and color separation of maps and charts has for various reasons met with mixed success. In addition, the amount of government resources which must be expended to support any mapping and charting contract program grows depending on the complexity of the work contracted.

Regarding the marketplace, DMA relies heavily on the small business community to satisfy our map and chart production requirements. We have never had an occasion in which we failed to award a contract due to a lack of response from qualified contractors.

REQUIRED GOVERNMENT PERFORMANCE

DMA's mission requires it to meet defense readiness and to provide a survivable production capability. In addition, we are accountable for quality and timely availability of products to users. Therefore, we have determined that there are aspects of the production process which must be performed by the government such as:

a. Development of requirements and specifications.
b. Source collection in hostile or denied areas.
c. Source selection evaluation.
d. Data base preparation and maintenance.
e. Contract administration and management.

In those areas of production where we use private contractors we still maintain a prudent level of in-house resources in order to fulfill our responsibilities to support military readiness, crisis response and safety of navigation.

SUMMARY

In summary, DMA relies on civil agencies and private contractors to help satisfy DoD critical requirements. Our overall success with contracting has been mixed. In some cases considerable government resources must be expended to support complex contracts. Therefore, DMA has taken a meaured approach to contracting for MC&G products and maintains an adequate in-house production capability. Thank you, Mr. Chairman, for this opportunity to present these views to you and the Study.

[The following information was subsequently received for the record:]

QUESTIONS OF THE COMMITTEE AND THE ANSWERS THERETO

Question. DMA has told this Committee that it maintains in-house capabilities on all work that is contracted out. On the other hand, in its testimony NOAA has said that backup in-house capability will be retained during the 3-year phase-in of a contractor for its nautical charts, presumably eliminating in-house backup by the third year. Does DMA find NOAA's approach acceptable? Please state your reasons.

Answer. Based on the last informal briefing we received from NOAA concerning their nautical charting functions we were advised that they had changed their plans and decided to keep an in-house capability of approximately 60 percent of their workforce. In their written statement before the National Ocean Policy Study of the Committee on Commerce, Science and Transportation, U.S. Senate, they indicated they would subject 22 percent of the positions reviewed to cost comparison studies over a three year period. Thus, it is our current understanding that they will phase in their contracting program over a three year period and still maintain an in-house capability. DMA has no objections to this approach. We have suggested, however, that any savings or cost avoidance associated with contracting out be applied to reduce the NOAA annual shortfall of approximately 100 new chart editions.

Question. Please list which nautical chart functions have been identified as "inherently governmental" in NOAA's discussions with DMA.

Answer. In discussions with DMA, NOAA has identified the data base management and source evaluation functions as inherently governmental. Also, they have chosen to keep in-house, a percentage of all functions rather than specifying which particular function must be performed by the government.

Question. Of the charting functions NOAA plans to subject to A-76 cost comparison, which ones involve the use of cartographic license? What contracting experience, if any, has DMA had with similar types of cartographic functions?

Answer. The functions which NOAA plans to contract that involve cartographic license are those associated with chart compilation. This is the actual building of the chart from the source material. These functions involve judgments dealing with the "what and how" of portraying information on the finished map product. This cartographic judgment is developed in professional cartographers after years of experience dealing with practical problems. Our experience with contracting the complicated charts that involve cartographic judgment has demonstrated that contractors have great difficulty producing quality products on-time. Currently, nearly all of these complex charts are produced in-house.

Question. Have NOAA and DMA concluded a written understanding regarding DMA's involvement in the A-76 process at NOAA and NOAA's commitments to DMA on what will and will not be done under A-76? If not, will such an agreement be concluded soon?

Answer. There is no written understanding between DMA and NOAA regarding DMA's involvement in the A-76 process at NOAA. We know of no plans by NOAA to seek any written agreement of this nature.

Question. In what respects does NOAA's approach to the contracting of nautical and aeronautical chart work differ from the DMA model for such contracting?

Answer. If our understanding of the NOAA plans is correct, it would be similar to the DMA approach with the exception of overall volume of contract work. The 70 percent proposed by NOAA in their latest model is considerably higher than what DMA relegates to commercial contract. It gets back to the amount of complex compilation verses simple revision and color separation to be accomplished.

Question. Please specify each type of chart work that DMA has determined does not lend itself to contracting out. Are any of these types of work to be included in NOAA's planned A-76 cost comparisons?

Answer. DMA does not contract out highly complex charts built from multiple sources. These sheets require considerable cartographic expertise and judgment, in addition to detailed knowledge of the source material in order to reconcile differences. To our knowledge, NOAA is simply contracting out a total percentage of the work to be performed. We have been advised by NOAA that their more complex charts should not be subject to contracting out.

Question. DMA's testimony indicated problems with contracting the "more complex" charting functions. Please describe the different types of functions that are in this "more complex" category.

Answer. Source selection, data base management, compilation and quality control are the most complex functions in the map and chart production process. DMA does not contract the functions of data base management or basic source data evaluation and selection with the private sector. These are critical responsibilities upon which compilation, color separation, and printing are dependent. The compilation function being performed under contract becomes more complex when multiple sources are used. This is so because when multiple, overlapping sources are involved in the compilation, selection and positioning of details, selective decisions are required by contractors which are not always anticipated in the basic source selection and assembly of materials by the government. Quality control factors are systematic actions that are designed to provide a 100 percent review of work completed in certain stages. This is complex since it requires not only determining that accurate and complete adherence to specifications was maintained, but also that any deviations or variances were justified without impairing the appearance or usefulness of the chart to be issued.

Senator STEVENS. Our next witness is James Winchester, the Associate Administrator of NOAA. I notice my friend Dr. Byrne is here. He may have usurped Mr. Winchester. He is going to at least accompany him.

Good morning, Dr. Byrne.

Gentlemen, how have you decided to proceed here? Mr. Winchester, are you going to present the statement?

STATEMENT OF DR. JOHN V. BYRNE, ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

Dr. BYRNE. Good morning. Mr. Chairman, Senator Gorton, I would like to make a few comments and then Mr. Winchester will provide the testimony.

First, I think it is essential that everyone recognize that this administration believes providing essential services to the citizens of the United States is important; certainly NOAA believes that and has no intent of in any way abrogating that responsibility.

On the other hand, we do feel we have a mandate to provide services and products in the most efficient manner possible, using whatever skills and talents may exist within the Government and within the private sector. The A-76 mechanism provides a tool which enables us to enhance our ability to use both Government and the private sector. So we believe that the A-76 process is an important one. We also believe that if it is carried out wisely and fairly the Nation will benefit.

I am accompanying my colleagues this morning at this hearing to indicate to the committee that we do take this charge seriously, and that we have recognized the importance of it. In fact have kept the administration of the A-76 process throughout NOAA in the Administrator's office. We have charged Mr. Winchester, the Associate Administrator of NOAA, with the task of monitoring and moving forward with the A-76 process because we do feel it is important.

Mr. Winchester is prepared to give testimony and to respond to questions; I will remain with him in the event there are questions which should be directed specifically to me.

Senator STEVENS. Thank you very much, Dr. Byrne. Mr. Winchester.

STATEMENT OF JAMES WINCHESTER, ASSOCIATE ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, DEPARTMENT OF COMMERCE

Mr. WINCHESTER. Good morning, Mr. Chairman, members of the committee. I am very pleased to be here this morning to comment on NOAA's A-76 effort. I have submitted a statement which I would ask be published in the record.

Senator STEVENS. It will be.

Mr. WINCHESTER. But I would at this time like to summarize that statement very briefly.

As you said in your opening comments, Mr. Chairman, the A-76 concept is not new, but there are three misconceptions, I believe, popular misconceptions, that I would just like to mention, again for the record.

First, it seems that many people always think of the A-76 objective to be contracting out. That is certainly not the case. The real objective is to improve efficiency and get our products and services at the best possible price to the taxpayer.

The second misconception seems to be that when you identify some function for cost comparison that automatically means it is going to be contracted out, and again that is not the case. There

are two criteria that must be satisfied under the A-76 circular before any contract is awarded. First it must be determined that there are qualified commercial sources to do the job without disrupting the ongoing programs permanently; and, second, the cost of contracting out must be at least 10 percent less than the cost of doing the same services in-house. So those two criteria must be satisfied before a contract can be awarded.

Third, there seems to be a popular misconception that inherently governmental decisions are kind of arbitrary and I do not believe the circular says that. It gives you some rather specific guidelines on what the inherently governmental functions are and, furthermore, there has been establishment of a precedent over the years which has determined those things that are or are not inherently governmental.

So I would just like to reiterate those so that hopefully we all will be communicating on the same frequency.

Now NOAA did start in 1982 to review its existing activities on the A-76 inventory, and we found at that time that NOAA only had about 300 positions under the A-76 inventory out of a total work force of about 14,000 people. Well, that seemed like too low a figure in an organization as diverse as NOAA, so we did then go into a rather extensive and, I believe, conscientious and well thought out review to determine what activities we had within NOAA that are truly commercial and industrial and should be put on the inventory.

So as a result of that we published an inventory in the Federal Register on March 15, 1983, and then another supplement on August 9, 1983. We identified 40 activities, organizational elements, with about 3,000 positions that should be reviewed if we were going to conscientiously comply with the circular.

As a result of our continuing review process we have now reduced that to about 34 activities, comprising about 2,100 positions. So we are constantly dropping some things off of the inventory as we get further involved in our studies to be sure that we do not waste our time and efforts to review something that ought not to be reviewed.

To date we have completed four reviews. When I say completed, we have gone all through the entire three processes of the A-76 requirements. And those four reviews have resulted in a savings of $2.9 million when these transfers or contracts are fully implemented. Three of those four completed reviews have been awarded contracts and one of them has remained in-house. But the one in house still identifies the same kinds of savings, in fact, identified better savings than the contractor did, and that is why it is remaining in house.

In addition to those four completed ones, we now have completed 17 management efficiency studies, which is the first requirement of the process, and at this time we have six solicitations that have been issued for bids from industry and two of those bids from industry are being evaluated and the other four have not been closed yet.

One of your requirements in the letter of invitation was that you would like my comments on the consequences of contracting, and in response to that I will categorically state that contracting out

appropriate functions—and I underline the word "appropriate"—will not decrease and may even increase the quality and effectiveness if again—and I underline "if"—the contracts are properly managed. That just says I am putting a lot of burden upon NOAA management to be sure that it is properly managed in-house.

The only difference in responsibility for a program that remains in-house or one that is partially contracted is that some of the work will be done by contractor personnel instead of in-house employees, and I believe this is a point that rather frequently gets lost in our discussions. It is almost implied that NOAA is going to contract out for a chart and we will not even be involved in the business, and that is certainly not the case.

I think, as Mr. Ayers testified, we too recognize that there are some functions, and only some functions, in the nautical and aeronautical charting that should be contracted out and there are many other functions that should remain in-house, and we intend to do that to the very best of our ability.

We keep hearing a lot about the quality control procedures. Certainly anything that would be contracted out, regardless of how mechanical it might be we would still specify quality control procedures in the contract document, but then the Government, NOAA employees, would be responsible for the quality assurance.

So quality assurance then involves seeing, first of all, that the quality control procedures are followed by the contractor; secondly, whatever kind of duplicative checks you need in order to be sure that the quality assurance is being fulfilled. And that is a standard procedure in contracting. So if it is managed well the results will be good.

Now NOAA has some very outstanding long-term engineering development and technical services programs that have been very effective, very economical, primarily with contractor personnel under NOAA management. One program that certainly you, Mr. Chairman, and you, Senator Gorton, are familiar with is the NOAA Data Buoy Program. It has been operated by contractors since its inception. I think it is world-recognized as being one of the best programs in data acquisition and so forth that this country or any other country has.

The GOES satellite data processing program done by Nesdis has been another very successful program operated under contract, and certainly we have several computer operation and maintenance programs that are operated under contract.

So contracting programs can be made very successful if they are managed properly, and I may say that again I would like to stress that point.

Also within the last few years NOAA has contracted out several weather observing functions. We have three in Alaska that are operated completely by contracts. They make surface observations and some upper air observation; I believe throughout the National Weather Service we have something like 21. They are being operated very well and the record shows that there is an insignificant difference in the quality and accuracy between the contracted programs and the in-house programs.

The question of legal liability has been discussed several times, and I would like to say right now that Mr. Steven Halloway, the

DOC Associate General Counsel is in the room and can discuss this in more detail. Basically we initiated a meeting with the Department of Justice in January 1984 between representatives of NOAA, the Department of Commerce General Counsel, and the Department of Justice Torts Branch.

Since that time, however, the Department of Commerce General Counsel has pursued this question of legal liability further. He has coordinated with the Defense Mapping Agency and the Naval Oceanographic Office General Counsels to try to determine if there were any special circumstances in charts that had to have special insurance.

I believe his findings have been that neither DMA nor NAVOCEANO requires any special indemnification or insurance requirements for their contracts beyond what is normally warranted in good contract management.

A copy of a memorandum from the Department of Commerce General Counsel is attached to the statement I submitted for the record, dated July 16, 1984. In summary, as I understand it as a nonlawyer, and what we have agreed with the Department of Justice is that before any contract is awarded we would certainly bring the Department of Justice into our decisionmaking process to advise us as to whether or not there should be any special type of insurance to indemnify the government.

We would certainly do that any time that we reached the point where it is necessary, but at this stage of the game we are not far enough along to justify going into a great deal of exercise on it because I am sure it is going to be some length of time before we are anywhere near ready to talk about awarding the contract.

Now in reference to nautical and aeronautical charting, just some general comments and then I will move more specifically on to the aeronautical and nautical.

First of all, I do want to state again that there has been no decision in NOAA to award a contract for any charting activities in nautical or aeronautical charting. We have awarded a contract for the distribution of charts. That contract was awarded late last year, but that is merely for the distribution of the printed charts.

Representatives of the Marine Chart Branch and the Aeronautical Chart Branch, as well as senior management, have met several times with representatives of DMA, FAA, NAVOCEANO, and the Coast Guard to brief them on our plans, as you heard the other witnesses testify, and they in turn have given us the benefits of their experience, which has been very useful to our plans, and we certainly have been very willing and anxious to get those kinds of recommendations and comments.

All the functions that we are talking about putting up for cost review, cost comparison, in nautical and aeronautical charting are the same kinds of functions that we believe DMA, NAVOCEANO and other Federal agencies have done under contract, so we do not believe that we are breaking any new ground as far as looking at the possibility of awarding contracts, even though NOAA itself has not done much contracting in this area before.

But anyway, I will conclude on that by assuring you that if we award a contract for any type of charting activity that there will be no deterioration in the quality and effectiveness of the programs

and again management will be sure that happens if the contract is awarded. Furthermore, there will have to be a 10 percent savings or more or we will never award a contract.

We believe that even in identifying activities to be cost compared, we have been very conservative in reaching those kinds of decisions. As I believe you heard Mr. Ayers talk about, we are planning a phased-in cost comparison. I did not say contract now. I said phased-in cost comparison over about a 3-year period of the functions in both the Marine Chart Branch and the Aeronautical Chart Branch.

As far as the Marine Chart Branch is concerned, our management efficiency study has been completed and the management efficiency study itself recommended reduction of about 20 percent for a most efficient organization, and only about 22 percent of the functions should be identified for cost comparison over a 3-year period. I might say that 20 percent efficiency recommended in the management efficiency study has pretty well been achieved merely because the billets that were authorized have not been filled.

So I think the management efficiency study seems to be quite consistent with what the in-house management has been thinking.

Again only the noncritical functions associated with evaluation and documentation in nautical products, preparation, proofing for printing and reproduction, those kinds of functions, are what we have identified as possible functions that might be cost compared. They are essentially routine cartographic and related mechanical functions which again have been contracted out in the past by either NOAA, DMA, or some Government agency.

In reaching our decisions we have had a considerable number of discussions with DMA and NAVOCEANO and the Coast Guard. I know I personally have met with the DMA representative on two or three occasions. Admiral Bossler has met with them. Some of the other people from NOS have met with them. We meet with the Naval Oceanographic Office people frequently and I myself have met I guess less frequently with the Coast Guard, but I have even met with Admiral Gracey and talked about our efforts here.

So we do not believe that our coordination with these agencies has been neglected. There may be a judgmental factor on whether we have coordinated as much as we should have, but we certainly have not neglected it.

Now in the Aeronautical Chart Branch our management efficiency study found that our Aeronautical Chart Branch was a very well run organization. They only recommended about 10 percent reduction for a most efficient organization, and that is certainly one of the better ones we have found.

We have also now identified about 30 percent of the functions that should be cost-compared over a 3-year period, and those have been, as you heard the gentleman from the FAA testify, coordinated with FAA and none of the FAA functions that NOAA is doing for FAA are planned for any contracting out. They will be retained in-house and we certainly have agreed with the FAA that we will work very closely with them.

In fact, just before I left my office I looked in my own records how many times that I know that we have met with the FAA people, and I think I came up with seven times. I myself met with

the FAA, Mr. Helms, back in December. I met again in February with Mr. Helms and his deputy, and Admiral Bossler and some of his people have met with him several times. Also, I know that we have invited FAA representatives for the briefings given by the consultant contractors during the time that the management efficiency study was being prepared.

So I maintain that we have done what I consider a reasonable amount of coordinating our efforts with FAA.

And in terms of what kinds of things in aeronautical charting business are contracted, a large percentage of the airline industry, as I believe the FAA representative said, are provided aeronautical charts produced by Jeppeson Corp., and there the data, I believe, comes from the Government but the charts are prepared entirely by a contractor, sold by a contractor, and there is no certification or quality control whatsoever on the chart from the Government.

So there are capable companies that can do some of this work, some of these jobs. We have consulted with a number of agencies and our aeronautical chart branch. This includes with the FAA offices, DMA, National Transportation Safety Board, Geological Survey, Aircraft Owners & Pilots Association, Airline Pilots Association, Jeppeson Corp., the Department of Justice, National Association of State Aviation Officials, and so forth. Many of those contacts were made by our consultant contractor in the process of the study.

Now in reference to the Atlantic & Pacific Marine Centers, the studies of both centers are still in progress and we have not made any decisions on contracting out. On the Atlantic Marine Center, the management efficiency study has been completed. That study recommends an organizational structure or staffing plan that will reduce the total number of employees by about 12 percent for a most efficient organization, which again I think I am quite pleased with for an organization as large as AMC. To have what we think was a very extensive and detailed management efficiency study that only recommended about 12 percent reduction for the most efficient organization I think is pretty good.

They also recommended that the *Mt. Mitchell,* which is homeported at Norfolk, is surplus to AMC needs and that recommendation is not inconsistent with other recommendations that we have had. Partly as a result of that recommendation, Paul Wolfe, the assistant administrator for National Ocean Services, has already developed a memorandum of understanding with the U.S. Navy for the use of the *Mt. Mitchell* for joint hydrographic survey projects during 1984 and 1985, and we expect that that agreement will be extended for 5 years.

So that impresses me as good management. We do not have full utilization of that ship in Norfolk so we have found another use for it that will keep it fully employed and take some of the costs of the operation off of NOAA.

Another example of the kinds of things that we are trying to do under the A-76 process. Now in addition to that the consultants in the management efficiency study recommended that we establish two additional hydrographic field parties in AMC. We have three there now. They recommended that we establish two more for a total of five.

Now that was done on the basis that on the east coast particularly there are many areas near shore that can be done much more economically by a field party than can be done by ship. For example, high speed launch. The cost is $72 per linear nautical mile for a hydrographic survey. The *Mt. Mitchell* the cost is $345 per linear mile. So there is great savings to be accrued by doing as much as possible with a field party instead of a seagoing ship.

We debated for a long time about what decisions we should make over cost-comparing some of the ships in the AMC fleet. We did feel that we had to show some effort if we were going to be consistent with A–76 policy and also consistent with what the U.S. Navy is doing. The U.S. Navy is comparing 12 of their ships out of the Military Sealift Command. So we have decided that we would like to cost-compare the *Pierce,* which is a class III hydrographic vessel based in Norfolk. We would like to compare the operation and crew functions of the *Delaware II* based in Woods Hole, MA, and the *Oregon II,* based in Pascagoula, MS. Both of those are fishery research vessels.

And then we would like to cost-compare three of the five hydrographic survey field parties against what the private sector might charge and what Government charges. None of that is inconsistent. NAVOCEANO has contracted for surveys for years and, as I mentioned, the Navy is now in the process of cost-comparing 12 of their survey ships, manned by Government crews, and NOAA has just recently awarded a contract to a commercial firm with a private ship to do some hydrographic surveys in Lake Superior.

And so we do not believe that we are moving out beyond what other agencies of the Federal Government have done in making that kind of a decision.

Of course, we note that the Corps of Engineers and the Canadian Hydrographic Service——

Senator STEVENS. Mr. Winchester, you are going to have to wind up your testimony very soon.

Mr. WINCHESTER. I will finish up in just a minute, Mr. Chairman.

We know that others have done it. Now in addition to the ships we are also planning to cost-compare some of the shore-based functions—electronic engineering, mechanical engineering and so forth.

Pacific Marine Center. We have not gotten any results from this study, so we cannot make any definitive statements.

So that is the conclusion of my summary, Mr. Chairman. We are only trying to comply with the circular. We believe the record shows we are being successful and we are showing some savings.

So with that, sir, I apologize for being too long, but we are happy to answer questions.

[The statement follows:]

STATEMENT OF JAMES W. WINCHESTER, ASSOCIATE ADMINISTRATOR, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATOR, U.S. DEPARTMENT OF COMMERCE

Mr. Chairman and Members of the Committee: I am James W. Winchester, Associate Administrator, National Oceanic and Atmospheric Administration (NOAA).

I appreciate the opportunity to comment on NOAA's efforts to implement the Federal Policy promulgated by OMB Circular A–76.

Mr. Chairman, the Bureau of the Budget promulgated a National Policy in 1955 that the Government should "rely on commerical sources to supply the products and services the Government needs." That initial policy was modified and revised

by Bureau of the Budget Bulletins in 1957 and 1960. Office of Management and Budget Circular No. A-76 was first issued in 1966, and it was revised in 1967, in 1979, and again in August 1983.

Therefore, the policy promulgated by OMB Circular A-76 is not new, and NOAA is merely trying to carry out that policy efficiently and conscientiously.

INTRODUCTION

Before I comment specifically on NOAA's efforts, I do want to correct some important misconceptions about the objectives of OMB Circular A-76. The objective is not to contract out activities and functions now performed by Federal employees. The Circular clearly states that functions which are inherently governmental shall not be contracted out, and must be performed by Federal employees, but it does set forth procedures for determining whether commerical activities required by the Federal government should be performed under contract with commerical sources or in-house using Government facilities and personnel.

The Circular also states that no activity nor fuction carried out by Federal employees may be contracted out until a management efficiency study has been made, and a comparison of the cost of contracting and the cost of in-house performance has determined that contracting out will produce savings of 10% or more.

In addition, it must be determined that capable commerical sources are available to provide the product or service without unacceptable delay or disruption of an essential program.

So, the two criteria that must be met before awarding a contract to a commerical source for any commerical activity instead of continuing to conduct it in-house are:

(1) There must be a commerical source capable of providing the product or service; and

(2) The cost of contracting out must be at least 10% less than the in-house cost of providing the same product or service.

Mr. Chairman, from my many years of experience as a marine scientist and as a manager of technical organizations, in both Government and industry, I know that competent Government management can determine whether or not those two criteria are satisfied before a contract is awarded.

It appears that these points are frequently missed by many people concerned with the A-76 process.

NOAA'S EFFORTS UNDER OMB CIRCULAR A-76

As part of OMB's REFORM '88 initiative, NOAA began an active review of the positions on the A-76 inventory in 1982 and found that the Agency had only 300 jobs under review out of a total work force of about 14,000. That figure seemed to be ridiculously low for an organization like NOAA. So, we initiated a conscientious effort to develop a program to comply with the policy promulgated by the Circular. Our review found that NOAA actually had more than 3,000 positions that must be reviewed in accordance with the requirements of the Circular.

In consultation with the appropriate Assistant Administrators and Staff Directors of NOAA, the Department announced in the Federal Register dated March 15, 1983, and August 9, 1983, that 40 activities would be reviewed in compliance with OMB Circular No. A-76. The number of activities has subsequently been reduced to 34 comprising about 2,100 employees. The review process has continued at a steady pace since that time in compliance with the Circular, and to date four reviews have been completed resulting in an annual savings of $2.9M when fully implemented. Three of these were contracted out and one remained in-house. Additionally, seventeen management efficiency studies have been completed, six solicitations have been issued for bids from industry, and bids for two of these have been received and are now being analyzed.

CONSEQUENCES OF CONTRACTING

You requested comments on the consequences of contracting in terms of the likely impact on the quality and effectiveness of the programs involved; I will categorically state that contracting out appropriate functions will not decrease, and may increase the quality and effectiveness, if the contracts are properly managed.

If decisions are made to contract out certain functions of programs, NOAA will retain complete management control of the entire operation. The only difference is that some of the work would be performed by contract employees instead of Government employees. Quality control procedures would be specified in the contract document, and NOAA would be totally responsible for quality assurance. NOAA now

has some outstanding long-term engineering development and technical services programs that have been very productive and economical.

Some examples are: (1) the NOAA Data Buoy program, (2) a GOES satellite data processing program, and (3) several computer operation and maintenance programs. Within the last few years, some weather observing functions have been contracted out to commercial sources, which are proving to be very satisfactory.

Also, NOAA's experience with contracting operations has shown that the Government benefits from the introduction of industry developed technology into our programs. Some of the new electronic, computer and data processing technology needed for many NOAA programs would be impossible or prohibitively expensive to develop in-house.

LEGAL LIABILITY

NOAA has taken steps to coordinate with the Department of Justice regarding the issue of indemnification of the government for damages caused by contractor negligence. In January 1984, an initial meeting concerning this issue was held with representatives of NOAA, the Department of Commerce General Counsel, and the Department of Justice Torts Branch. Since that time, the Department of Commerce General Counsel has coordinated with the Defense Mapping Agency (DMA) and the Naval Oceanographic Office (NAVOCEANO) General Counsels to determine any special provisions required in their contracts for charting activities and hydrographic surveys to protect the Government in situations similar to those NOAA is contemplating.

It should be noted that neither DMA nor NAVOCEANO requires any special indemnification or insurance requirements of their contractors beyond what is normally required. The reasons for this are addressed in a memorandum from the Department of Commerce General Counsel. A copy of that memorandum, dated July 16, 1984, is attached as an appendix to this testimony.

However, insurance or indemnification requirements should be determined on a case by case basis. There may be some special situations in which insurance or indemnification requirements in NOAA contracts would be advisable even though DMA and NAVOCEANO have not required any in the past. We have agreed with the Department of Justice that they will review all provisions of RFPs or contracts concerning liability before they are issued or awarded. In this way, we can ensure that the Government receives the proper protection in the specific circumstances.

NAUTICAL AND AERONAUTICAL CHARTING

First, there has been no decision to contract out any of the actual nautical or aeronautical charting activities. A contract has been awarded for distribution of charts. Management Efficiency Studies of both the Marine Chart Branch and the Aeronautical Chart Branch have been completed as required by OMB Circular A-76.

Representatives of the Marine Chart Branch, the Aeronautical Chart Branch, and senior NOAA management have met several times with representatives of DMA, FAA, NAVOCEANO, and the Coast Guard to brief them on our plans. In return, we have been briefed by them on their contract operations and plans and have received many helpful recommendations concerning our studies. All of the functions associated with our nautical and aeronautical charting activities that have been identified for cost comparison are now being performed or have been performed under contract in the past by DMA, NAVOCEANO or other Federal agencies under contract with a commercial source.

No contract will be awarded unless we have bids from at least one capable source; quality control procedures will be specified in the contract, and NOAA employees will have full responsibility for quality assurance.

Therefore, if a contract is awarded, I assure you again that there will be no deterioration in the quality or effectiveness of the programs or chart products provided to users. In addition, there will be at least 10% savings to the taxpayer, otherwise no contract will ever be awarded.

In reaching our decision on "what are commercial/industrial functions," and "what should be cost compared," we have been very conservative. We have allowed for contingencies to ensure that there will be no disruption of the programs during phase-in if a contract is awarded as a result of the cost comparison analysis.

1. Marine Chart Branch

The Management Efficiency Study of the Marine Chart Branch recommended a reduction of about 20% for a most efficient organization, and only about 22% of the

positions reviewed have been identified for cost comparison with the private sector; these cost comparisons would be phased-in over a period of three years.

Only noncritical functions associated with evaluation and documentation of data base management, documentation of quality control of nautical products data base, preparation and proofing for printing and reproduction of maps and charts, and compilation and maintenance of textual material for coast pilots will be cost compared. These are essentially routine cartographic and related mechanical functions, which other agencies such as the Defense Mapping Agency have contracted for a number of years. Some functions which NOS has contracted in part over the years are included.

The important point is that we have no intention of cost-comparing functions where there is no established contractor capacity and we will retain those functions which assure quality control of chart products. Furthermore, we plan to retain in-house some capability to perform those functions which, if cost compared, result in a contract. In that way, the government will continue to be able to perform all functions in case of contract failure, national emergency, or other eventuality.

NOAA representatives have discussed our plans in detail with representatives of DMA, NAVOCEANO, and the Coast Guard.

2. Aeronautical Chart Branch

Our management review showed a generally well run organization and identified a reduction of only 10 percent for a most efficient organization. Approximately one-third of the positions reviewed have been identified for cost comparison with the private sector, and these comparisons will be phased-in over a three year period. A three year phase-in schedule will provide sufficient contingencies to avoid any unacceptable delays or disruption of essential services.

All elements of production related to charts and other visual materials prepared exclusively for the FAA will be retained in-house. Routine cartographic and related mechanical operations associated with public use products will be cost-compared. Both DMA and NOAA have used contracts to accomplish this type of work efficiently and accurately for a number of years, so there is an identified capability in the private sector.

It should be pointed out that the entire airline industry relies upon a private contractor at the present time to provide its chart products. These charts are neither verified nor certified by NOAA.

Representatives of the following organizations were consulted during the study of the Aeronautical Chart Branch: numerous FAA offices, DMA, National Transportation Safety Board, U.S. Geological Survey, Airline Owners and Pilots Association (AOPA), Airline Pilots Association (APA), Jeppeson Corporation, Department of Justice, National Association of State Aviation Officials, and the Alexandria Drafting Company.

ATLANTIC AND PACIFIC MARINE CENTERS

The studies of both the Atlantic and Pacific Marine Centers are still in progress, so no decisions concerning contracting out have been made.

1. Atlantic Marine Center (AMC)

The Management Efficiency Study of the Atlantic Marine Center has been completed. The study recommends an organizational structure and a staffing plan that will reduce the total number of employees by approximately 12 percent for a most efficient organization. The study also concluded that the NOAA ship *Mt. Mitchell*, with a crew of 71 FTE, was surplus to AMC requirements.

NOAA concurs with those conclusions and recommendations, and has developed a Memorandum of Agreement with the U.S. Navy for use of the *Mt.* Mitchell in joint hydrographic survey work during 1984 and 1985. We anticipate a five year extension of that agreement.

The AMC fleet consists of eleven ships: one large oceanographic research vessel, five hydrographic survey vessels, including *Rude* and *Heck*, four fisheries research vessels, and one vessel engaged in coastal oceanography. In addition to the hydrographic survey vessels, there are three field parties that conduct coastal hydrographic surveys from trailerable launches. The Management Efficiency Study recommends the establishment of two more hydrographic field parties to conduct survey work now being performed by ships in order to have the most efficient organization.

NOAA concurs in that recommendation.

There is no question about the capability of the private sector to conduct quality hydrographic surveys. NAVOCEANO, the Army Corps of Engineers, the Canadian Hydrographic Service, and the British Hydrographic Office have been contracting for hydrographic surveys for many years.

To determine the potential savings between Government and the private sector costs of operating vessels, NOAA has decided to compare with the private sector the operating costs of the *Pierce*, a class III hydrographic vessel, based in Norfolk, Virginia; the operational crew functions of the *Delaware II* based in Woods Hole, Massachusetts, and the *Oregon II* based in Pascagoula, Mississippi, both fisheries research vessels; and the operation of three of the five hydrographic survey field parties. Cost comparisons are planned for only three of the eleven ships. That is certainly a measured approach which will determine what, if any, savings can be realized by contracting out ship operations, but will not cause delays nor disruption of on-going programs.

Additionally, the functions of the Marine Services Division will be cost compared. These functions are in support of the ship base and ship operations. They include electronic engineering, mechanical engineering, and the operations branch in Norfolk and the operations of the ship support facilities at Woods Hole, Massachusetts; Pascagoula, Mississippi; and Miami, Florida. This amounts to 33 percent of the shore based functions of AMC.

Representatives of the following organizations were consulted in the management study of the Atlantic Marine Center: UNOLS, U.S. Coast Guard, U.S. Power Squadrons, U.S. Military Sealift Command, and the Federal Aviation Administration (FAA). Also, the outside technical consultant advising in the management study was the former head of Mapping, Charting, and Geodesy of the Survey Operations Division, U.S. Navel Oceanographic Office (NAVOCEANO).

2. Pacific Marine Center (PMC)

The Management Efficiency Study of PMC was initiated on May 14, 1984, so we do not have sufficient results from the study to reach any conclusions or decisions.

CONCLUSIONS

Mr. Chairman, NOAA is trying to implement the Federal policy promulgated by OMB Circular A-76 efficiently and conscientiously, and the record shows that we are being successful. Also, the record shows that we have already achieved significant savings to the taxpayers. That is our only objective.

My colleagues and I will be pleased to answer questions. Thank you, Mr. Chairman.

GENERAL COUNSEL,
U.S. DEPARTMENT OF COMMERCE,
Washington, DC, July 16, 1984.

Memorandum for: James W. Winchester, Associate Administrator, NOAA.
From: Marilyn G. Wagner, Assistant General Counsel for Administration.
Subject: Liability of NOAA contractors for charting functions.

I am responding to a request from Jack Coleman of your office and Tim Keeney of the NOAA Office of the General Counsel regarding NOAA's proposal to contract out certain of its charting activities. The question addressed to my office regarding this matter concerns where liability would lie should someone suffer damage or injury as a result of a defect in a chart produced by a contractor.

At the outset, it should be noted that regardless of the amount of input from a contractor, NOAA's charts would still be sold to the public as U.S. Government products. If there is a liability-producing error on a chart, the Government is potentially liable to the public whether the error was that of the contractor or NOAA. The question here involves those cases where a contractor is negligent and the Government is held responsible for that negligence because the chart was a Government product. In other words, does the Government, or should the Government, have any rights of indemnification against a negligent contractor for defective work on a chart? If so, should the Government require that a contractor obtain sufficient liability insurance to cover not only its own potential liability, but that of the Government as well in those cases where the Government is held liable for the contractor's negligence?

To assist in resolving these issues, we have consulted informally with several other federal agencies in this area. The Defense Mapping Agency (DMA) produces worldwide nautical charts primarily for use by the Navy and international commercial shipping. It currently contracts out certain basic functions such as compilation and color separation. As to the functions contracted out, DMA feels indemnity and

insurance provisions are unwarranted, since its editing or quality review process is designed to pick up any defects in these areas. In addition, DMA feels this process is comprehensive enough to be tantamount to acceptance and "ratification" of the contractor's work so that it becomes DMA's product. Considering the Government's lengthy history of being a self-insurer, DMA feels it is counter productive to require the contractor in these circumstances to insure the U.S. as well.

The Naval Oceanographic Office performs many of the data acquisition functions for the DMA. This office contracts out some functions such as hydrographic surveying. Generally the Office does not require any special indemnification or insurance requirements of its contractors beyond what is normally required. The legal office of the Naval Oceanographic Office thinks the potential for liability exposure is so slight as not to warrant special attention.

We also consulted the Torts Branch at the Department of Justice, which litigates cases alleging nautical or aeronautical chart negligence. Their informal advice is that if NOAA and other chart-making agencies contract out charting work, the contract should provide that the contractor would indemnify and hold the U.S. harmless for any and all services rendered; the contractor should be required to obtain liability insurance at its own expense covering its activities and naming the U.S. as an insured under the policy; and the U.S. should have the right to participate or direct at its discretion the defense of any litigation in which the product is at issue.

NOAA's role in preparing nautical or aeronautical charts is similar to DMA's and the Naval Oceanographic Office (except for the geographical area of the charts). However, it has experienced substantially more litigation involving allegedly defective charts than DMA, and on occasion has been held liable for chart errors. In short, NOAA has been subjected to more potential exposure to third party liability for inaccuracies on its charts. However, in the case of an oil spill or a commercial airline crash, the potential for very large judgments totalling tens of millions of dollars or more exists.

NOAA should examine separately each proposed function to be contracted to determine whether indemnity or insurance should be required. The production of a nautical or aeronautical chart involves many separate functions, and errors can potentially occur at any of these stages. Such errors can be very subtle and may go undetected for years until an accident occurs. If an error which causes an accident is determined to be that of a contractor, the question becomes whether the government or the contractor should bear ultimate responsibility for any third party damages. The answer to this question would likely be determined on the basis of the concept of quality assurance.

Certain of NOAA's chart making functions are more susceptible to Government quality assurance than others. For example, in the data acquisition area, such functions as hydrographic surveying, photogrammetry or flight checks might be contracted out. In these situations there appears to be no effective way of providing adequate quality control over the contractor's product short of duplicating the work. NOAA would have to rely on the expertise and accuracy of the contractor's effort. In situations where the Government cannot assure adequate quality control over a contractor's product the risk of the Government becoming liable for the contractor's negligence increases.

On the other hand, in areas such as compilation, which is the actual depiction of features on a negative, NOAA's quality assurance may be sufficient to pick up errors such as misplaced towers, power lines, or an underwater pipeline. In these cases one could argue that quality assurance should pick up such errors and if they do slip through, they essentially become NOAA's errors. The Government would be a self-insurer in such cases.

Other functions, such as printing, may not be so clear cut. For example, a printing contractor might be given an error-free negative and a color proof to use as a guide. NOAA has performed quality assurance review on the negative and the proof copy but normally does not review the reprints of the contractor. Assume that in the printing process the contractor inadvertently allows the negative to be damaged, resulting in the obliteration of a vital piece of information such as the height of a tower. If an airliner crashes as a result of such an error, it would be difficult for the government to escape liability. Therefore, each function proposed for contracting should be examined individually for liability purposes. In addition, the contracting process may initiate a review of NOAA's quality assurance methods to insure that potential liability is avoided. (For instance, NOAA may have to review the reprints of a contractor prior to dissemination to the public.)

Finally, an issue has been raised as to the impact on this matter of the Supreme Court's recent decision in *United States* v. *Varig Airlines*, 52 U.S.L.W. 4833 (1984). This case involved the 1973 crash of a commercial airliner that had been certified

by the Civil Aeronautics Agency (CAA), the predecessor agency of the FAA. Suit was brought againt the United States by Varig and the families of many of the passengers under the Federal Tort Claims Act (FTCA) alleging negligence by the CAA in inspecting the aircraft and in issuing a certificate for airworthiness. The CAA conducted such activity pursuant to the regulatory authority conferred upon it by the Federal Aviation Act of 1958 to promote safety in air commerce.

The Supreme Court held that the discretionary function exception of the FTCA precludes a tort action based upon the FAA's conduct in certificating aircraft for use in commercial aviation. However, while the decision appears clear as to regulatory activities of a federal agency, the implications are uncertain as to discretionary service functions, such as NOAA's charting activities. We will certainly argue that *Varig* applies in any future litigation involving NOAA's charts to develop the case law in this area. However, it cannot be assumed at this point that *Varig* will protect NOAA's charting activities and that of any contractor that may become involved in the process.

Senator STEVENS. Thank you.

How much of your budget is involved in the area that is under examination under A-76?

Mr. WINCHESTER. How much of our total budget?

Senator STEVENS. What is the cost of the functions that are being examined under A-76? DMA told us it has $600 million a year. How much do you have in terms of the total mapping and charting area that you are reviewing now?

Mr. WINCHESTER. I am not sure I have it down exactly like that. The Atlantic Marine Center, for example, the total budget—we expect a savings of $3,900,000.

Senator STEVENS. Just tell me the budget. I am not interested in savings. How much total money are we talking about in terms of its total review on an annual basis?

Mr. WINCHESTER. $130 million.

Senator STEVENS. $130 million a year?

Mr. WINCHESTER. That is the total amount of the budget that is under review, that is right.

Senator STEVENS. Now you talk about the problem and the possibility of contracting out the surveys, for instance. That is a function that has been performed by a number of agencies in the past, NOAA as well as the Geodesic Survey, the Coast Guard, the Navy. What portion of that total survey process is currently under the budget that you mentioned of $130 million?

Mr. WINCHESTER. I am not sure I quite understand the question.

Senator STEVENS. You are talking about the prospect of contracting out these survey functions, marine survey functions, but most of them you do not do right now, do you? Most of them are Coast Guard, Geodesic Survey, Navy.

Mr. WINCHESTER. No, sir. The ones that we are going to cost-compare are ones that we are doing.

Senator STEVENS. I know, but of the amount done by the Federal Government you do a very small part of it, do you not?

Mr. WINCHESTER. I am sure we do. I do not have the figures of the total.

Senator STEVENS. You do not do the Navy's. You do not do the Coast Guard's.

Mr. WINCHESTER. I do not have the slightest idea what the total Government budget is in hydrographic surveys, no, sir, but ours are a very significant part of the total budget, I am sure.

Senator STEVENS. Well, I have got a series of questions I want to submit to you, Mr. Winchester, that have been prepared by the staff.

Mr. WINCHESTER. I would like for you to submit those for the record, if you would, Mr. Chairman, if it is detailed budgets.

Senator STEVENS. No, these are just general questions.

Let me tell you that my feeling is that the portion of the activities that lead to the charts that mariners rely on and the aviation industry relies on it seems to me that NOAA does not do very much of that. Am I wrong, Dr. Byrne? I mean, it looks to me like you are examining in great detail and disturbing both of these great portions of our economic community and really what you are reviewing is a very small part of the whole function.

Dr. BYRNE. I do not think that is quite accurate, Mr. Chairman. I believe that if you look at the total charting function which involves DMA and the Department of Defense that probably NOAA's part is a relatively small part. But with respect to the waters around the United States, those within the exclusive economic zone and farther offshore, NOAA is the major charting agency for the Government.

And so we are looking, if we look at domestic waters, at a significant amount of the effort. Now we do a major portion of the surveying of those waters. We do obtain information from the other agencies that have been mentioned, but by and large the mission of charting domestic waters is a NOAA mission.

Senator STEVENS. Yes. But if you contracted out the part that you do it would still be not a very significant portion of what the Federal Government is doing in charting waters off our shores today, as I gather it, and the same thing about your aeronautic efforts.

I am constrained to say, you know, just somehow I do not understand the impetus behind this when you are really not looking to a great deal of contracting out. If NOAA was in the process of getting ready to contract out the work done by the 3,200 positions, which is the impression of the industry, then I might be getting ready to have some much longer hearings, Dr. Byrne, but my impression is that you are really looking at a very insignificant portion of the 3,200 positions to start with.

Now why have you not said that?

Dr. BYRNE. Well, I do not think we regard it as insignificant, if I can focus on that word.

Senator STEVENS. I am not saying the work is insignificant, but I am saying if you get down to contracting out 200 or 300, the work performed by 200 or 300 positions, they are in the distribution area on the one side or on the basic raw data acquisition in terms of contracting out the work of these hydrographic survey groups now. I do not think that there would be that much disturbance in the various communities.

But we are getting mail from every portion of the marine and aviation sector. They think you are going to give up the whole 9 yards as far as the aviation charts and marine charts, which from what I heard this morning is not true.

Dr. BYRNE. That is not correct, sir. It is not true.

Senator STEVENS. That is what I would sort of like to hear you say. What do you really intend to do, Dr. Byrne?

Dr. BYRNE. Well, I think Mr. Winchester has summarized the relatively few functions that we are looking at in terms of operating in a more efficient way. There has been in my personal judgment a misconception on the part of the public with respect to the degree to which we are looking at contracting out. You are quite correct, sir, that the percentage that we are looking at is a relatively small percentage.

There does seem to be some concern. I think the concern is one which is healthy. I think it is based on the fact that the charts which have been produced by NOAA over the years have been very highly regarded, as has been testified by several witnesses this morning, and it is for that reason that there is concern.

I think the public, however, should also feel confident that the management of the agency in the production of these charts is not about to change, that we in no way abrogate our responsibility for the accuracy of the charts. But there has been within the public realm, I think, a misunderstanding with regard to the degree to which we are looking at a more efficient way of operating in terms of possible contracting out.

Senator STEVENS. Well, in the definition of contracting out it says—this agreement with the Navy on the *Mt. Mitchell*, is that contracting out?

Mr. WINCHESTER. No, sir. That is not contracting out.

Senator STEVENS. That is not my definition. That is still within the Government, is it not?

Mr. WINCHESTER. That is not contracting out, but what I was going to add to what Dr. Byrne said, even though the total value of the functions that we are planning to cost compare is small compared to the total Federal Government we do see potential savings that are quite significant in terms of NOAA's budget.

We are talking of savings of anywhere between 20 to 25 percent, which from NOAA's budget point of view is quite substantial.

Senator STEVENS. Twenty to twenty-five percent of what, the $130 million?

Mr. WINCHESTER. Yes, of the $130 million that we have under review, right.

Senator STEVENS. Well, that would not be insignificant.

Mr. WINCHESTER. That is the point I am trying to make, that in NOAA's budget it would not be insignificant. It might be rather insignificant in the total Federal budget, but 20 to 25 percent is certainly a significant figure in our budget, and in the best estimates that we feel that we can save a total of anywhere from $30 to $40 million a year out of NOAA's budget, if our A-76 plans are fully implemented.

Senator STEVENS. This thing has got to end up, by the way. Both Senator Gorton and I have been called. We are going to reschedule the second portion of this hearing. I apologize for that, but it is just one of those times. We will give notice as to when the other witnesses will appear representing AOPA and Boat/U.S. and the Pilots Association. Again, we will hold a hearing to hear you all, but it cannot be this afternoon, unfortunately.

As we look at this problem right now it is being accentuated by the public understanding of what you are doing under A–76.

Mr. WINCHESTER. Yes, sir, that is correct, and that is why I tried to reiterate some of the misconceptions in my summary.

Senator STEVENS. You know, the problem I have and I think the problem the industry has in trying to identify where you are going with this is in terms of quality control and in terms of what the objectives are as far as the savings are concerned. DMA has found it can contract out its printing and there is no impact at all on its performance, apparently, and it is better off by having a reserve group of printers that understand the business, so if they have an emergency they can expand very rapidly.

Now in your situation there does not seem to be any idea coming through of maintaining a comparable ability within NOAA in the event the contracting out does not maintain the quality. To what extent do you have the commitment to maintaining the ability to maintain the services in the event the contracting out does not work?

Mr. WINCHESTER. Well, we have built in contingencies. That is one of the reasons I mentioned that these cost comparison studies would be phased in over a 3-year period, so that still says we would have two-thirds of the same capability that we had initially if one-third happened to go out on contract.

So I am sure with still two-thirds left in-house and some other things that you could do like over time or something like that you could certainly cover yourself in some kind of emergency situation. And, of course, if a phase-in from in-house to contractor is approved that contract usually takes anywhere from 3 to 6 months to phase in. So during that phase-in time if the contractor is showing that he cannot perform the functions then, of course, you would not phase it in.

Senator STEVENS. Well, Mr. Winchester, you have already had a problem. As a matter of fact, I asked GAO to look into the problem of the failed performance or reports of failing performance of the distribution contracting agreement you have already entered into.

Now when you get to the point where you rely upon a contractor and the contractor does not perform, are you telling me you are going to maintain the in-house capability to perform in the event the contractor does not perform?

Mr. WINCHESTER. Well, you are certainly not going to maintain that indefinitely, or there would not be any need to go to a contractor.

Senator STEVENS. That was my next question.

Mr. WINCHESTER. You certainly would not save anything like that. But certainly if a contract is awarded properly and to a qualified contractor I think the percentage of failure is going to be very, very low.

Senator STEVENS. But in this business you cannot afford any.

Mr. WINCHESTER. Well, we are trying to build in enough contingency by phasing in so that we will have a capability of carrying on in an emergency.

Senator STEVENS. Well, I am told in this case you RIF'd all of the employees in the chart distribution section. Is that right?

Mr. WINCHESTER. Let me address that.

Senator STEVENS. Just answer that question just for old time's sake. Did you RIF the employees in the area covered by that distribution contract?

Mr. WINCHESTER. We RIF'd the employees that were covered by the order fulfillment part of the contract, and the order processing part of the contract is being done by a contractor.

Senator STEVENS. And have you extended that contract in spite of the deficiencies that were reported to NOAA?

Mr. WINCHESTER. The phase-in part for the order processing part of it has been extended because it was very poorly documented software. I might say that the order processing is really a software ADP problem. It is being done by a contract or now and always has been.

Senator STEVENS. But in view of the performance and the record of that chart distribution contract have you made any changes in the procedures concerning the review of these contracting out procedures?

Mr. WINCHESTER. Well, I think we learned something from that one that we will not do again. That was the first one. And again let me reiterate, though, that the only problem the present contractor is having is with the order processing part of it, which is about one-third of the total effort in the contract, and his contract obligation was to assume this order processing function from the existing contractor.

It was a very poorly documented software program and he has had trouble and still is having trouble picking up that function satisfactorily, but it is still being performed by the initial contractor. It has not cost the Government any additional money because the contractor is paying for the continuation under the old contract and it has not affected Government employees because there were no Government employees associated with that particular part of the contract.

The part of the contract where the Government employees were RIF'd is the order fulfillment part of it, which is about two-thirds of the total effort and that is going on very well.

Senator STEVENS. It is not the point of what has been done after the failure took place. It is a question of whether you have changed the procedures so that you can monitor the performance under a contract which has been entered into to contract out a portion of your duties so that you could resume those functions in the event of failure.

Now this was not the first time this contractor failed, was it?

Mr. WINCHESTER. Well, he has never satisfactorily been able to assume the order processing part of that function.

Senator STEVENS. And has that affected the timeliness of the delivery of these charts?

Mr. WINCHESTER. No, sir, it has not. That question has been determined, that it has not affected the timeliness of the delivery because the order processing function is still being conducted by the contractor that has had the job for the last 3 or 4 years.

In other words, the changeover has not been made for that particular part of the contracted out program, and the contractor has reimbursed the Government for the cost of continuing that contract. So the Government has not lost any money by his lack of

being able to take over that part of it. It has not affected any Federal employees. It has not impacted on the distribution.

When we had questions about slowdown of distribution, those questions were answered, I believe by Admiral Bossler. The slowdown in distribution was caused a long time ago by a management decision in NOS, I assume—it certainly was not made by me—that there would be a new edition of charts coming out soon and they did not print a sufficient number of charts to take care of the requirements that they have had and found they were in short supply.

I think that is the cause of that problem we have had.

Senator STEVENS. Now there are 34 functions under review, according to your testimony.

Mr. WINCHESTER. Yes, sir.

Senator STEVENS. That still could be contracted out. They involve some 2,100 employees and you say that your review process is going ahead at a steady pace.

Mr. WINCHESTER. Yes, sir.

Senator STEVENS. Have we got a listing of those functions? Have they been published?

Mr. WINCHESTER. Yes, sir, they have been published. In fact, I have the list right here, but we will submit all of that kind of material to the committee.[1]

Senator STEVENS. I would like to have that for the record to see what we are talking about.

Mr. WINCHESTER. Yes, sir. We can give it to you. They have been listed. But let me say that the 2,100 positions, that does not follow at all that all 2,100 of those would be contracted out. That says the functions that are going to be reviewed have a total number of employees of 2,100.

When you review those you are obviously going to find that a certain percentage, and probably a fairly large percentage, of those functions are inherently governmental, which automatically restrict them from being under contract.

Senator STEVENS. All right. Well, you say in your statement that all of the production elements of charts and visual materials for FAA will be retained in-house.

Mr. WINCHESTER. Yes, sir.

Senator STEVENS. Are any portion of those within the 34 functions you were just talking about?

Mr. WINCHESTER. Well, the——

Senator STEVENS. What I am saying is have you eliminated any of the 34 functions so far in your own in-house decisions that we do not know about?

Mr. WINCHESTER. Well, we started out with 40, as I said. We are down to 34.

Senator STEVENS. We are down to 34 now. Have you ruled any of those out? The statement implies that you have with regard to charts.

Mr. WINCHESTER. The Aeronautical Charting Branch is one of those 34.

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[1] See p. 72.

Senator STEVENS. That is what I am saying; 1 of the 40 or 1 of the 34?

Mr. WINCHESTER. One of the 34.

Senator STEVENS. And you have stated that you are going to retain them in-house.

Mr. WINCHESTER. We are going to retain something over two-thirds of it in-house.

Senator STEVENS. What is the one-third that you are still looking at for contracting out?

Mr. WINCHESTER. Well, that is the more mechanical parts of chartmaking like reproducing and preparing for printing, compilation of data—these kinds of functions.

Senator STEVENS. After you get your charts back, let us assume that you contracted out all that you just mentioned. Would the finished charts come back to you or would they be distributed out in the private sector?

Mr. WINCHESTER. No, sir. They would come back and be distributed by NOAA out of our distribution branch.

Senator STEVENS. And who determines at that point the cost of those charts to the public?

Mr. WINCHESTER. Well, the cost to the public is established by law and it is my understanding now that the way we charge the public is for the cost of preparation and distribution. Printing and distributing primarily is the only charges we pass on to the general public and most of the charts the taxpayer is subsidizing to a large extent the cost of those charts.

Senator STEVENS. The taxpayer is getting a lot of protection in terms of knowing where airplanes land and where ships are going to be in sea lanes.

Dr. Byrne, this is not a back door way of getting to that charge business, is it?

Dr. BYRNE. No, sir.

Mr. WINCHESTER. It is not associated with the charge at all. In fact, Mr. Chairman, really if we continue on the same policy of charging it would cause the charges to be reduced because we are not going to award a contract if we do not get some benefits from it. So if you can get some of the production functions and so forth done more cheaply under contract certainly that cost would have to be passed on to the buyer now under the policy that we presently use on charging for charts.

Senator STEVENS. Well, what I am trying to get to is whether or not you are going to retain the in-house capability to perform in the event these contractors do not perform or because of economic circumstances fail for reasons beyond their control.

A lot of them are owned by congolomerates that may run into problems in connection with some other kind of operation entirely foreign to the chartmaking or distribution business. You could find yourself a subsidiary of the ABC Co. where the A function went totally belly-up but C, the chartmaking function was still going, but it would still go down the tube economically in terms of bankruptcy.

Now what in-house capability do you have to perform the services in the event they fail?

Mr. WINCHESTER. Well, first of all, let me address that point. If you do your work up front correctly you are not going to award a contract to somebody like that. I mean, you pick your source well at the very beginning.

Senator STEVENS. Unless you know something I do not know, I do not know anything you can do to prevent shareholders from selling a company.

Mr. WINCHESTER. You cannot prevent anybody from selling the company, but that company would probably still be in business if you pick a reliable company that has a record in that business.

But to answer your question there are at least two things that you do. You do keep some in-house backup that would help you through an emergency, but then if you begin to find that you have problems with an existing contractor the A-76 procedure requires that you start immediately negotiating with another bidder that was the runner-up to bring in a new contractor. That is required in the circular.

Senator STEVENS. That still does not answer the in-house capability problem, Mr. Winchester. I do not know how you are going to do it.

Mr. WINCHESTER. I guess if you say do you have to have a complete in-house capability to back up in case of any kind of emergency then perhaps you are going to have trouble justifying going to a contractor.

Senator STEVENS. Well, have you thought about not going sole source on some of these things?

Mr. WINCHESTER. We would not go sole source on anything. Under A-76 it is impossible to go sole source. It has to go out under competitive bid.

Senator STEVENS. That ends up with sole source if you have one bidder.

Mr. WINCHESTER. It would be awfully poor management if you awarded the contract with one bidder, because that says that you do not have sufficient capability in the private sector to do your job. But if you have five bidders and three of them turn out to be very capable, the A-76 procedure then says you must award the contract to the lowest bidder, if they all perform to the level specified in the statement of work.

But that says that you have two more companies that you could bring in in an emergency if the first bidder fails or begins to show signs of failing during his performance.

Senator STEVENS. Do you have anything to add, Dr. Byrne?

Dr. BYRNE. No, I do not think so, sir. I think the point you were striving for was that on a long-term basis if there is a major failure in the future does NOAA have the capability of pulling that back in. I think the obvious answer is that we would have the capability to pull it back in but only by probably going out and finding other people.

We would maintain a modest in-house capability to back up the effort, whatever it might be, but there is no assurance over, I think, a long period of time that we would be able to step in and without any perturbation in the system move on with the job as the contractor was doing it.

If we did maintain that kind of capability, I think there would be little reason to contract the activity out, but it has been our experience in areas that have had a long history of contracting that that is not the likely event, and we would cite the example of the National Data Buoy Office, which has operated over the years very effectively using a total contract system where NOAA does not have the capability the contractors have.

But we have managed through the years to demonstrate that contracting can work in conjunction with a Government operation.

Senator STEVENS. I do not think we have any argument with that, Dr. Byrne. I think there are functions that you perform that involve part-time effort of the Federal Government during periods of a year that could well be blended in with other activities. I think what we are worrying about is the chart function—the reliability, the timeliness of that information, its total accuracy and availability to the public through a system if you really give up your in-house capability.

I am impressed with the fact that DMA, which handles materials that will be used in the event of emergency, God forbid—but we do have them once in a while—has contracted out what I gather to be, what, $50 million out of $1.8 billion in a 3-year period.

Those charts are not used daily by our citizenry. You are preparing the charts that are used every day throughout the whole country and there is more of an emphasis to contracting out the activities that affect our citizens and our economy daily than there is on those that affect our national security only really in the event of an emergency.

And when it comes right down to it, DMA relies on what you do for the United States itself, and I really question the breadth of this examination as to why you did not find some significant portions of NOAA, such as the surveys, and determine whether or not it could be done before going into a wholesale review of your agency and having, you know, the national economy predicting that Government is about ready to abandon its responsibilities for safety, for reliability, and the whole 9 yards of this.

Now the scope of this A-76 investigation is what has caused more concern than anything else, I think.

Dr. BYRNE. Well, I think the concern in terms of looking strictly at the A-76 process is that we have looked at the entire agency to identify those 34 functions. We are not talking about 34 functions solely in the charting and mapping area, and we are not talking about our total savings coming from charting and mapping. But this is one small area or one small element of NOAA's overall responsibility.

What we are attempting to do here and part of the reason for going into a 3-year phasing into this is that we are feeling our way into a relatively new area. We have, we think, successful experience in the general contracting activity but we are looking at areas of NOAA which have not been substantially contracted before.

We have cited a number of different elements, not just in the actual production of charts but in fact in some cases of considering and in fact are involved with contracting out the actual hydrographic survey. We believe that this can be done in some cases effectively, safely, and in no way would the agency abrogate its re-

sponsibility to the people of the United States for the accuracy and safety which is incorporated into those charts.

Senator STEVENS. Well, if history repeats itself and you RIF the people that are in those areas once you have the contract, where is the in-house capability to maintain that function in the event something goes wrong?

Basically, I think the Congress is going to want to have the opportunity to review the judgment of whether it is in fact basically a governmental function. The first thing under A-76 is whether or not it is basically a governmental function and should not be contracted out, period.

Now I have not heard anything that indicates that there has been that decision on this area of 34 functions. I assume you have made that judgment on those 34 functions already. Have you?

Mr. WINCHESTER. Well, let me address that, Mr. Chairman. We are not saying that everything in those 34 activities being reviewed are inherently governmental, and we are certainly not saying that it is all commercial. But the first thing that has to be done is to make a management efficiency study so that you can sort it all out, because when you have a very complex organization like the Atlantic Marine Center, for example, you have certain functions that are inherently governmental.

Senator STEVENS. And they shall not be contracted out, period. But it sounds like you are still reviewing some that you have determined are inherently governmental.

Mr. WINCHESTER. No, sir. We are reviewing the entire activity to first of all determine what functions within that activity are not inherently governmental. You cannot make that decision until you understand more about what the operation is.

Senator STEVENS. Well, assuring safety of the sealanes and safety of the airways Congress has already determined is inherently governmental.

Mr. WINCHESTER. Yes, sir, that is true.

Senator STEVENS. We are in agreement on that. The safety functions you are going to retain.

Mr. WINCHESTER. Yes, sir, we certainly are. But when you take out of 5,000—maybe not 5,000 but 500 people that are employed in some of these activities there may be 200 or 300 in there that the functions could be performed by contractors instead of Government employees.

Senator STEVENS. But are we talking about things similar to DMA in terms of printing charts?

Mr. WINCHESTER. Yes, sir, we are talking about the same kind of functions that DMA has been doing.

Senator STEVENS. All right. Unfortunately, they are waiting for me over there, so I am going to have to go. I am going to submit these questions to you. We would appreciate it if you would respond to them. The responses will be made available in the committee and to the other witnesses who would have had the opportunity to hear your answers had we been able to complete them.

We will schedule the balance of the hearing as soon as possible, in the balance of this week, if it is possible, if not, when we get back in September.

I would urge you to try to do something to alleviate the fears that have been expressed by the two basic communities—the maritime and aviation communities—about the extent to which they believe you intend to contract out governmental functions. I do not hear that this morning, and yet I read it in my mail.

People out there believe you are about ready to abandon the maritime charts and contract the whole function out.

Mr. WINCHESTER. We try to make that point everywhere we can, and we get mail, too, that we always answer and explain exactly what we are doing. But it seems like it is a hard point to get across to a lot of people. But we will be very happy to answer in detail your questions.

Senator STEVENS. Have you had any seminars in the Atlantic and Pacific Centers in terms of the meetings with the Airline Pilots Association? Have you tried to explain where you are going?

Mr. WINCHESTER. I do not know of any formal seminars that have been held, but our people are in contact with those kinds of people all the time, so I think there are certainly a lot of people out there that know, but apparently there is not a sufficiently high number.

Senator STEVENS. Well, the letters I am getting from Alaska pilots—and they are not the kind to really sit around and write letters. I do not hear from them very often.

Mr. WINCHESTER. We get some of those, too.

Senator STEVENS. But they are not the kind to write unless they have some real reason to believe that there are some things that are basically going to be disturbed in the function that they rely on, which is the maritime charts.

Mr. WINCHESTER. Well, I guess it must be obvious that we have not sold our program sufficiently well to those kinds of people, but we certainly have tried.

Senator STEVENS. Well, we will look forward to the balance of the hearing, and we will be in contact with you after that.

[The following information was subsequently received for the record:]

QUESTIONS OF THE COMMITTEE AND THE ANSWERS THERETO

Question. In March, OMB Deputy Director Joseph Wright requested the Department of Commerce to identify 4,000 new positions for A-76 cost comparison—in addition to the 3200 positions already identified (2700 of which are in NOAA). This resulted in a June 12 directive by your office which attached a list of some 7,000 NOAA employees and asked all NOAA line managers to identify additional A-76 activities from that list.

What is the status of your response to OMB's request?

Answer. NOAA is still in the process of reviewing the inventory of commercial activities. We anticipate a finalizing of the inventory and report by the Department of OMB by the end of calendar year 1984.

Question. In your testimony, you state that "NOAA employees will have full responsibility for quality assurance" in cases where activities are contracted. Does this mean that you are committed to keeping a core capability, similar to how DMA handles contracting?

Answer. Yes. If a contract is awarded for the performance of any functions, NOAA will maintain a core capability to manage the contract and assure that the contractor performs the functions satisfactorily and complies with the terms, conditions, and specifications mandated by the legal contractual agreement. Appropriate quality control procedures must be specified in the contract document, and therefore, NOAA employees must be available to assure that the quality control procedures specified in the contractual document are implemented satisfactorily.

Question. What assurance will the government have that an acceptable level of quality control is performed by the contractor? Does quality assurance inlcude monitoring quality control procedures employed by the contractor?

Answer. The acceptable level of quality control must be specified in the contractual agreement, and NOAA must have procedures to assure that the quality of the products are acceptable. Therefore, some type of monitoring and duplicative checking would be required. The exact procedures would depend upon the functions being performed under contract.

Question. If the contractor defaults, will you have the in-house capability to continue full cartographic operations? To what extent should government resources be employed to assure the contractor does not default?

Answer. A contract should not be awarded unless NOAA has a capability to carry out its mission if a contractor should default. I cannot visualize a scenario where it could possibly be economical to award a contract and concurrently maintain an in-house capability to continue the full operation in case of a contractor default. If such a scenario did exist, no contract would be awarded.

A more likely scenario would be some in-house capability, another contractor or a combination of the two whose capabilities could be diverted and/or expanded to continue the full operation if necessary. Many skilled NOAA cartographic positions are not under review. Those personnel are currently involved in activities such as long-term marine chart automation projects and development of new products. Those activities are not critical to safety and could be suspended for indefinite periods of time in order to redirect the talents of the personnel to production of charts for end users.

In summary, NOAA management must assume the responsibility for and have a plan for handling a possible contractor default as dictated by the individual circumstances. The government has an obligation to cooperate with the contractor, but it cannot assure that the contractor will not default.

Question. We have heard FAA and DMA stress the importance of quality assurance in chart production. Standard operating procedures for chart production are an essential part of an RFP under Circular A-76. Does NOAA have standard operating procedures for nautical or aeronautical chart production? If not, what are you doing to develop them?

Answer. NOAA does have standard operating procedures for both nautical and aeronautical charts, including quality control. These procedures have been developed over a period of years and are the basis for the on-the-job training given to each of our cartographers. However, these procedures are not well documented at present. Consultants are working with NOAA personnel to complete the aeronautical and nautical charts standards and operating procedures over the next several months.

Question. Will you give your assurance that you will not issue an RFP under Circular A-76 for either nautical or aeronautical charting unless it includes clear and dependable standard operating procedures?

Answer. Yes. No responsible manager in Government or industry would do otherwise.

Question. I understand that the National Ocean Service has for several years been in the process of automating the production of its nautical and aeronautical chart products. This has involved the hiring of young, computer-savvy cartographers who develop charts directly on computers. Won't a RIF of all or a substantial number of current in-house cartographers derail this automation effort, since the younger, recently-hired cartographers are the ones who would be RIF'ed and are also the ones with the most computer-related skills?

Answer. The chart automation efforts use the experience and skills of personnel of all age groups, not just a few young cartographers.

The nautical chart automation effort has existed for 10 years and has not made satisfactory progress. It involves 23 employees and obsolete equipment. The effort is being redirected. Eighteen employees are being reassigned and will continue under new direction. DMA spends more on automation alone each year then NOAA does on all of charting. We will utilize their developments as appropriate.

The Aeronautical Chart Automation Project was given high marks by the management consultant. The project is currently staffed with computer specialists and a rotational group of cartographers. We do not foresee any impact on this project as a result of possible RIFs of cartographers.

Question. The preparation of a management efficiency study on the marine chart branch requires, presumably, a knowledge of nautical cartography.

Was anyone with expertise in nautical cartography involved in preparing the consultant's management efficiency studies for the Marine Chart Branch? How about appropriate expertise for the Aeronautical Chart Branch?

Answer. The primary requirement for the conduct of any management efficiency study is that the team be skilled in management study techniques. NOAA's contract management consultants have extensive backgrounds in the conduct of management studies in a variety of organizational settings.

The NOAA approach for conduct of management studies of technical organizations, such as the Marine and Aeronautical Chart Branches, has been to rely on consultants for management study expertise, with technical advice from our own technical employees. In both studies, the cartographic expertise and input was provided by NOAA cartographers. However, an outside expert in cartography was retained by the managment consultants in order to receive an external cartographer's perspectives.

Question. How will the government be protected from the effects of strikes or workstoppage or slowdowns on the part of contractor employees?

Answer. Any contractors performing time critical work will be required to provide a strike contingency plan which will provide for continued performance of essential functions in the event of a strike or other work stoppage. This is a standard procedure with contracting.

Question. During April 5, 1984, hearings before the Subcommittee on Coast Guard and Navigation, House Committee on Merchant Marine and Fisheries, Mr. Winchester testified that he was not aware of the in-house study term's rebuttal to the contractor's efficiency study of the Marine Chart Branch.

Have you established procedures for considering in-house comments on current and future A-76 studies?

Answer. After the April 5, 1984, hearings, I learned that the reason I was unaware of the in-house study team's rebuttal to the consultant's management efficiency study of the Marine Chart Branch was that subordinate line managers did not forward the study to me through the chain of command because they reviewed its contents and forwarded with their recommendations those comments that they felt appropriate.

I see no requirement for establishing procedures for considering all in-house comments on current and future A-76 studies. Under existing procedures, I consider all rebuttals to contractor's studies that are forwarded to me through the proper channels with appropriate comments from the line managers. Furthermore, I believe it is well known within NOAA that I maintain an "open door policy" so that any NOAA employee can communicate his comments to me personally if he or she makes the effort to do so.

However, I do not believe that I can nor should solicit comments from junior NOAA employees concerning management decisions that are not officially forwarded through the appropriate line management officials. No competent manager makes decisions based on popular votes.

Question. A number of interagency agreements exist between NOAA and the other agencies or departments, including FAA, DMA, and the Defense Department. These bear on exchanges of information, program coordination, and actions to be taken in the event of a national emergency.

To what extent has NOAA taken these agreements into account in making its decisions within the A-76 process? For example, during a national emergency, what would happen to an activity that has been contracted out and is covered by one of these agreements? Will there be special contract provisions permitting the government to take over the operation in a national emergency?

Answer. Within the context of the functions to be cost compared with the private sector, this question addresses what is essentially a "non-problem." Requirements of interagency agreements have been taken into account in all studies. These agreements provide that NOAA will provide certain products, services, facilities, and personnel in the event of a national emergency. NOAA will meet those commitments, either through a contract with the private sector or through the efforts of federal employees. NOAA is not eliminating through the A-76 process its ability to perform. To the contrary, we are attempting to develop more flexibility and thereby enhance and expand our ability to respond in a national emergency. Contractors will continue to perform in wars and national emergencies as they have throughout the history of this country. However, the government will have authority to take over the operation in a national emergency, just as the government can terminate contracts for the convenience of the government at any time.

Question. During February and March, NOAA issued five incomplete requests for proposals with draft performance work statements and no closing dates for prospec-

tive bidders to submit proposals. Does NOAA intend to pursue this approach in the future for other A-76 cost comparisons, given the limited response by potential bidders? If so, why and under what circumstances?

Answer. NOAA does feel that this approach has been very useful. The primary benefit is that it has given prospective bidders advance notice of functions involved and has given them an opportunity to prepare. Preparation of the proposals is very time consuming and expensive. The government has benefited by increased competition when long preparation periods can be provided. We do feel that we can make some improvements to this process. This would involve the publishing of presolicitation notices. This new procedure has already been implemented.

Question. The request for proposals for the National Weather Service's Test and Evaluation Division at Sterling, Virginia, was issued March 6, 1984. Since its issuance, it was amended six times and the closing date extended three times. One of the main causes for these amendments and postponements is that the final Management Efficiency Study (MES) was not completed until six weeks after the initial FRP was issued.

Shouldn't the final MES have been completed before the RFP was issued? What lessons has NOAA learned from the experience?

Answer. It is not uncommon for RFPs involving a large number of functions to be amended numerous times. This is the natural process of refining the work statement as it comes under scrutiny from a wider circle of readers such as other government managers and prospective bidders. It is best to clear up ambiguities rather than proceeding and hoping for the best. The Test and Evaluation Division RFP was on the street for 4 months, or 120 days. This is not excessive. It is not necessary for an MES to be completed before an RFP is issued. An MES merely determines the staffing levels required to perform the functions that are already included in the RFP.

Question. For each division-level activity within the National Ocean Service, please indicate its annual budget for FY 1982, FY 1983, and FY 1984 and the amount of its budget that is attributable to contracting for goods or services.

Answer. National Ocean Service budget information for fiscal year 1982, 1983, and 1984 is contained in Exhibits 1, 2, and 3.

Question. NOAA has just recently awarded a contract to a commercial firm with a private ship to do hydrographic surveys in Lake Superior.

What procurement method was used to obtain these services? To what extent were the contractor's demonstrated competence and qualifications taken into account in making the award?

Answer. Standard procurement methods were used: (1) RFP to all requesting companies, (2) bidder proposals were rated technically, (3) contract was awarded to lowest bid from a company judged fully qualified and responsive under step 2. Bidders without demonstrated competence and qualifications were eliminated in step 2, before price competition. The contractor is currently several weeks ahead of schedule and doing excellent work.

Question. NOAA's plans for cost comparison under A-76 involve a three-year phase-in plan. Is it true that if contractors prevail in each of the three stages of cost comparison, all in-house positions for these functions will be eliminated except for a handful of personnel for quality assurance and contract administration? For example, isn't it true that if all 82 positions involved in aeronautical Visual Charts, Enroute Charts, and Instrument Approach Procedure Charts were contracted out, only four in-house employees could be retained in-house for both quality assurance and contract administration? Would you please provide to the Committee the three-year plan?

Answer. The number of personnel required for quality assurance has not yet been determined. Only through development of the Performance Work Statement and the accompanying Quality Assurance Surveillance Plan can the required staffing be determined. The three-year plan is not available at this time. It will be developed as part of the Performance Work Statement.

Question. Mr. Winchester's written testimony states that under Circular A-76 "the cost of contracting out must be a least ten percent less than the cost of doing the same services in-house." However, the circular requires only that 10 percent of the in-house personnel costs be added to the contractor's bid? Isn't it true that costs for equipment, supplies, and space rental (much of which is determined elsewhere and is beyond NOAA's control) often exceed personnel costs in NOAA's surveying and charting activities and that the Circular does not require the contractor to submit lower costs for these?

On the other hand, isn't it also true that the OMB Circular does not allow a contractor activity to revert to an in-house activity unless the government cost estimate

is under the contractor's bid by 10 percent of the personnel costs plus 25 percent of any capital equipment acquisition?

Answer. You have a correct understanding of the requirements of the Circular in these cases. However, in most cases, 80-90 percent of the government's costs are personnel-related. Most of our studies will require contractors to operate government-owned facilities. In these cases, items such as equipment, supplies, and space rental are not included in the cost comparison when provided by the government to the contractor. In essence, these cost comparisons are determined on the basis of personnel costs.

Since the RFPs for our chart branches and marine centers are not written, and the analysis has not been performed for the PWS, no decision has been made as to the mix of equipment, supplies, and space that will be provided by the government.

Question. The NOAA library in Rockville, Maryland, also is being reviewed for possible contract conversion.

It is my understanding that the Request for Proposal does not contain minimum requirements of expertise for potential contractor personnel who may run the NOAA library. How will NOAA guarantee that the quality of its library services--which also are used by other Federal agencies—continues at the necessary level?

Answer. The RFP does include the requirement that minimum standards for personnel working under this contract are found under the 1410 (Librarian) and 1411 (Library Technician) Series in the following reference. Attention is particularly added to sections in the Series dealing with standards when subject expertise is required.

Reference: United States Office of Personnel Management, Office of Standards Development, Qualifications standards for positions under the general schedule (Handbook x-118).

In addition, the evaluation criteria show the weights associated with key personnel, the proposed labor mix, the proposed level of effort and corporate experience. These criteria will be applied by the Technical Advisory Committee in evaluating responses to the RFP.

Procurement regulations forbid requiring personnel with specific levels of experience since this would be directing the contractor. However, the Quality Assurance program will protect the Government from non-performance by penalty clauses and other provisions included in the PWS and the contract documents for lack of satisfactory performance.

Question. Mr. Winchester testified that quality assurance involves making sure that "quality control procedures are followed by the contractor" and the "whatever kind of duplicative checks, you need to be sure that the quality assurance is being fulfilled."

Isn't it true that under OMB Circular A-76, there are specific restrictions on the number of in-house personnel that may be used for contract monitoring, including quality assurance tasks? If so, is it possible under A-76 for NOAA to satisfy FAA's requirement for 100 percent chart accuracy or to duplicate DMA's system of 100 percent review of contractor work?

Answer. The Circular provides guidance on the number of personnel who may be involved in contract monitoring. However, it also provides for obtaining permission to exceed this guidance. It is anticipated that the Circular guidance will not provide sufficient staffing for monitoring cartographic contracts and we anticipate seeking an exception to this guideline.

Question. The NOAA Data Buoy program has been cited as an example of an effective contract-run program. Was the Data Buoy program contracted out under A-76? Isn't it true that the contract is on a cost-plus basis and is designed for maximum performance, not maximum efficiency?

Answer. The Data Buoy program was not contracted out under A-76. Also, the Data Buoy program is not a contract run program. It is run by and managed by the NOAA Buoy Center (NDBC) utilizing an appropriate mix of civil service, Coast Guard and contractor personnel and facilities. The NDBC staff for more than 14 years has consisted of about 30 federal employees and its total expenditures have more than $10 million per year.

Only the most complex engineering development projects are awarded to industry on a cost-plus contract. Most systems development and all procurements of systems are procured on fixed-price contracts. Engineering support services such as deployment at sea, maintenance, data quality control, logistics, etc., are performed by a contractor on a three to five task order agreement. That is the type of contract specified by the A-76 procedures; the contract award is made for a period of one year with two to four options for renewal, contingent upon satisfactory performance of

the contractor. Fees to the contractor are also determined by the quality of performance.

NDBC was designed to be an efficient program management organization and to demonstrate both the technical and economical advantages of an industry/government partnership. Both maximum performance and maximum efficiency have resulted from this fourteen year old partnership.

The technical support contract, presently in force at NDBC, Is a cost-plus-award-fec type contract; but, it is not designed for maximum performance at the expense of maximum efficiency. The contractor's management has total authority to organize and manage the performance of work, including selection and assignment of all resources. The contractor's management is then subjectively graded by the Government for work quality, work timeliness, and efficiency in the use of resources. The fee (profit) paid, if any, is unilaterally detemined by the Government, based upon the contractor's performance in achieving these conflicting objectives.

Question. Mr. Winchester testified that changes to the public for charts would go down under A-76 "because we are not going to award a contract if we do not get some benefits from it. So if you can get some of the production functions and so forth done more cheaply under contract, certainly that cost would have to be passed on to the buyer . . ."

On the other hand, NOAA will reportedly take a different approach in charging for photographic products now produced by the Imagery Reprocessing Laboratory, which will soon be produced by a contractor pursuant to A-76. Isn't it true that most of these photographic products will increase in price even though the A-76 cost comparison reflected cost savings for the Government (e.g., an 18" x 18" color print will increase from $35 to $82)? What considerations involved in determining these photographic prices are different from those associated with chart prices?

Answer. The problem illustrated by this question is that the A-76 cost comparison considers more of the Government cost component than does the Title 44 pricing algorithm. In the case of the photographic products from the Imagery Processing Laboratory, the primary purpose of the products is to support the production of charts. These products are made available to the public just as a spin-off. Consequently, when the public sale price is determined, only the incremental production costs are considered. For in-house production, this means that equipment depreciation and space rental are not included; just basic supplies and personnel costs are used. On the other hand, when the products are obtained from the contractor, the Government is charged the same unit price whether the product is retained for in-house use of sold to a public customer. The unit price includes all production costs. Therefore, the price that will be charged after the Imagery Processing Laboratory is contracted out will be a more accurate reflection of the true production costs and the prior Government subsidy to the public users of these products will be eliminated.

Since the prices for NOAA charting products are already based on an accurate determination of actual production costs, a reduction in chart prices should result if the chart production activities are contracted out as a result of an A-76 coste comparison, all other factors being equal.

LIABILITY

Question. The U.S. Government is liable for damages resulting from errors in NOAA charts and this liability exists whether the charts are produced by contractors or in-house personnel.

In your testimony, you state that insurance or indemnification requirements should be determined on a case-by-case basis. In view of the extensive potential liability from marine and aviation disasters, that can reach $200 million or more per incident, has NOAA considered adopting DMA's approach to liability—which emphasizes very careful checking?

Answer. Yes, NOAA has considered the DMA approach to liability which emphasizes very careful checking. We intend to include this within our program. However, NOAA is concerned that the DMA program may be insufficient in many situations. We were suprised to find that DMA does not require indemnification from its contractors in any of its chart contracts. NOAA's approach will be to consider indemnification provisions where prudent in addition to close quality assurance surveillance.

Question. Has NOAA reviewed the staffing of DMA's quality assurance activity to determine the ratio of staff needs to workload?

Answer. As part of the development of the Performance Work Statement and Quality Assurance Surveillance Plan, the DMA method will be examined as one means of developing required staffing.

Question. Has NOAA decided on how many staff will be included in the quality assurance unit?

Answer. No. See answer above.

Question. What assurance will NOAA and the Justice Department require to ensure that a contractor will be meticulous and conscientious in maintaining the kinds of records needed for litigation related to chart errors?

Answer. This is a matter which will be addressed to the Department of Justice before issuing a Request for Proposal.

CONTACT WITH USER GROUPS

Question. In a House hearing in April on nautical charting and marine services, Mr. Winchester stated that he had not made any effort to consult with marine user communities, like groups representing boating interests, commercial fishermen, and harbor pilots. In his testimony, Captain Cisar of the Potomac River Pilots Association notes that he has yet to hear from NOAA.

Has NOAA contacted many of these groups since the Senate hearing? What efforts has NOAA initiated to consult with nongovernmental users of aeronautical charting products, for example, the Aircraft Owners and Pilots Association or the Air Line Pilots Association?

Answer. I answered the question asked: "Have you made an effort to consult with the marine user community?" I believe that I stated that the consultant, Arthur Young Company, and NOAA employees had consulted with such groups. I do not believe that I can nor should consult personally with all such groups. There is no limit on the time I have available for such consultation.

Since the Senate hearing, I have met personally with Captain Cisar of the Potomac River Pilots Association, the president of Boat Owners Association of the United States, and several representatives of the Aircraft Owners and Pilots Association. Additionally, a briefing is being given on September 19, 1984, for aeronautical and nautical user groups regarding the status of the studies of the Aeronautical and Marine Chart Branches, and the Atlantic and Pacific Marine Centers. However, I must reiterate that our consultants have met with many of the groups you mention and these meetings are documented in the reports and working papers of the Management Efficiency Studies.

Also, I have documentation of meetings that I personally attended with FAA and DMA prior to the House hearings on April 5, 1984, and copies of letters I wrote to user groups.

AERONAUTICAL CHART BRANCH

Question. NOS and FAA have recently established a team which, in FAA's words, "will identify specific functions that [they] mutually believe should be considered for cost comparison."

Are there any limits on the issues that the team may consider? How binding will the team's recommendations be? For example, if the FAA members raise objections about a particular activity being considered, will that be determinative?

Answer. There are no limits on the issues the NOS/FAA team may consider. The team's recommendations will be considered along with other recommendations and policy mandates with which NOAA management must comply or resolve before making decisions. Objections by FAA members will not be determinative; NOAA management cannot abrogate its responsibilities to decide nor agree to management by committee.

Question. FAA's statement describes "a constant and continuous" working relationship between NOAA chart personnel and FAA. How would the contracting of a significant portion of the NOAA aeronautical chart activities affect the responsiveness and flexibility from NOAA that FAA has been able to rely on to date?

Answer. The NOS/FAA team effort will ensure that the responsiveness and flexibility that is necessary between NOAA and FAA in the interest of air safety will be maintained. Additionally, products used exclusively by the FAA will continue to be produced 100 percent by NOS employees.

Question. In AOPA's testimony, a statement is made that quality control depends on completion of the aeronautical chart automation program, now underway. Do you agree?

Answer. No, we do not agree. The aeronautical chart automation program is a "tool" for managing the vast amounts of air cartographic data used in chart con-

struction and the production of special products and services for the FAA. Quality control, or review, is vested in the experienced cartographer and aeronautical information specialist.

Question. AOPA also raises a specific concern about one of the A-76 consultant's comments—that validation by NOAA of 100 percent of the items shown on aeronautical charts is unnecessary and costly—and should be reduced to a 5 percent random sample. Do you agree? What effect would this have on aviation safety?

Answer. If a contract is awarded for some functions of the aeronautical charting activities, quality control procedures and requirements for each function will be specified in the contractual documents based upon sound technical and managerial principles.

NOAA management recognizes and understands the significance of aviation safety, and I assure you that no action will be taken that would degrade safety.

NAUTICAL CHARTING

Question. If NOAA achieves management efficiencies through personnel reductions and A-76 contracting, will the savings be applied to bring nautical chart production back to NOAA's historical level of 450-500 new editions per year, as suggested by the DMA witness?

Answer. NOAA is presently evaluating user requirements to determine the minimum number of new chart editions. Potential A-76 savings are proposed as a direct base reduction to NOAA's budget.

Question. If nautical chart production were contracted out completely after the three-year phase-in, how long would it most likely take to reestablish the present level of nautical chart production if the contractor were to default?

Answer. Since the number of cartographic positions in the Marine Chart Branch that have been identified as cost-comparable is only a fraction of the total nautical chart production capability, even in the worst case of contractor default, it would take only a short time to totally restore the present level of in-house production capability.

Question. In April of this year, the President of the Southeastern Alaska Pilots (Marine Pilots) Association wrote to the House Committee on Science and Technology to express concern about contracting of marine charting. He pointed out that Alaska has particular and unique charting needs because of its isolated location and rugged terrain.

How will NOAA ensure that Alaska and areas with similar needs will be adequately serviced?

Answer. A prerequisite for any contracts that may be awarded with respect to nautical charting is that there be no degradation in the quality of the charts and services produced. Therefore, neither Alaska nor any of the other presently charted coastal areas need to be concerned about a diminution in NOAA's response to their particular or unique requirements.

Question. What is the average number of years of cartographic experience in the Marine Chart Branch and the aeronautical cartography division?

Answer. For both activities, the average number of years of cartographic experience is approximately 14-15 years.

Question. Arthur Young performed a management efficiency study of NOAA's chart reproduction effort, but this will apparently be handled outside the A-76 process. Please describe the steps in the process for carrying out the Arthur Young recommendations under Title 44 of the U.S. Code. Were in-house personnel permitted to comment on the study?

Answer. Although the reproduction activities fall within the purview of Title 44, we have consulted with the Joint Committee on Printing and determined that we should follow procedures similar to those prescribed in OMB Circular A-76. The employees concerned were interviewed and given opportunities to comment as was the management of the activity.

ATLANTIC AND PACIFIC MARINE CENTERS

Question. As you know, the Marine Centers in Norfolk, Virginia, and Seattle, Washington, employ over 1,000 people. The Centers conduct hydrographic and oceanographic surveys, and operate eight vessels in support of their nautical chart-making responsibilities. A recently-released Arthur Young study reportedly recommends that all functions at the Atlantic Center be characterized as nongovernmental and be contracted-out.

Do you expect the consultant to reach a similar conclusion with respect to the Pacific Center?

Answer. The Arthur Young study did not recommend that all functions at the Atlantic Marine Center be characterized as non-governmental and be contracted out. The Arthur Young study did find that most of the functions being conducted at the Atlantic Marine Center such as the at-sea hydrographic and oceanographic survey work, ship operations and maintenance, shore based engineering and logistic support, facilities support, instrumentation test and repair, etc., could be and are being done by private industry, primarily under contract with governmental agencies.

Planning, managing, directing, budgeting for and assuring the quality of the end products are inherently governmental and cannot be contracted out.

Yes, I expect that the consultant will reach a similar conclusion for the Pacific Marine Center.

Question. If a decision is made to contract out the majority of AMC and/or PMC services and products, what effect will this have on the NOAA fleet? Will the vessels continue to be government owned but contractor operated? What safeguards will be established to maintain vessels in the necessary state of military readiness? Who will be responsible for decisions on what repairs are needed and when?

Answer. No decision has yet been made to contract out any of the AMC or PMC activities, so a question on what effect it would have on the NOAA fleet is premature. The effects of contracting out on the NOAA Corps, status of the NOAA fleet, the pros and cons of government owned versus privately owned ships, etc., are other factors that must be considered in reaching a decision on what if any functions should be contracted out.

If further study indicates serious consideration of contracting out the operation of ships, I would recommend continued government ownership but contractor operated. In answer to the questions on maintenance, military readiness, repairs, etc., NOAA would be responsible. The Department of Defense, including the U.S. Navy, has for many years contracted out the operation of ships. The precedent has existed for many years.

Question. What will be the impact on the NOAA Corps? Will the Corps be terminated? Has NOAA sought DOD input on the impact NOAA management decisions could have on military readiness and preparedness? If so, what is the DOD position?

Answer. There will be no direct impact on the NOAA Corps. Although a small number of positions under review are filled by NOAA Corps personnel, in the event of a contract award, these personnel will be reassigned within NOAA to other duties. The A-76 program will not cause the termination of the need for the NOAA Corps. We do not foresee any degradation of military readiness and preparedness. We have not received comments on the question from the Secretary of Defense.

Question. Will the government's supervisory personnel have the same authority to order contractor personnel to carry out missions in poor weather or harsh conditions that they presently have with respect to the NOAA Corps? What recourse will they have if their instructions are not obeyed?

Answer. Yes. Authorities and responsibilities of both parties would be specified in the contract.

The contract could also include a payment arrangement so that the contractor's fee would be reduced if his performance was unsatisfactory. Most of all, any private sector corporation that had the contract would be very much aware of the fact that recompetition of the contract would be forth coming.

Question. Are there hydrographic survey companies with capability to do the surveys being done by NOAA vessels at the Atlantic and Pacific Marine Centers? Do these survey companies have the capability to operate large vessels?

Answer. The answer to both questions is yes. There is extensive capability in the private sector to perform these operations. We will be glad to provide you with some of their names if you desire. Hydrographic surveys have been performed by the private sector for many years for organizations such as the U.S. Navy, Army Corps of Engineers, Canadian Hydrographic Service, British Hydrographic Office, and, now, NOAA in Lake Superior.

WEATHER SERVICES

Question. Mr. Winchester stated after the August 6 hearing that NOAA had no intention of proposing A-76 cost comparison of any functions within the National Weather Service now performed by professional meteorologists. Did Mr. Winchester accurately state NOAA's plans regarding the National Weather Service? Is there any NWS activity that may undergo A-76 cost comparison, other than the ones already being evaluated?

Answer. A. My response was that NOAA does not plan to contract-out weather forecasting that would involve professional meteorologists. We are now conducting a

review to determine if there are further commercial activities in NOAA; therefore, it is quite possible that other NWS activities might be identified for cost comparison.

CHART DISTRIBUTION CONTRACT

Question. Continuing questions have arisen regarding the chart distribution contract being handled by the Market Compilation and Research Bureau (MCRB). Could you provide an update on the MCRB contract, especially with respect to the ADP operations?

Is the original contractor ERA still running the computer operations?

Answer. The ERA contract was extended by NOS until October 31, 1984, however, under the retest procedures MCRB has the on-line responsibility for operating the order processing system. NOS is utilizing ERA as a "Safety Net" operation to insure NOS capability for timely distribution until MCRB's order processing performance capability is determined.

Question. Has MCRB yet satisfied the contract's requirement for a successful parallel test run of the computer operations?

Answer. The contract requests MCRB to demonstrate its capability of performing the order processing services, it does not specifically require a parallel test. The partial transition period has been extended to October 31, 1984, for this evaluation.

Question. How many months has MCRB required to learn how to operate the ADP?

Answer. The contract was awarded effective September 1, 1983. It contained a 9-month transition period. The portion of the transition period for order processing services has been twice extended for a total of 5 months and will end not later than October 31, 1984.

Question. Was MCRB advised of the poorly documented ADP software prior to bidding on the job?

Answer. Yes, there were notices in the Statement of Work that the Government software, IADS, could be selected at the Contractor's option. The software was identified as being under development, and not complete, trouble free or fully documented. However, the extent and magnitude of the deficiencies in software were not provided to MCRB. Additionally, other unusual complexities of the system were understated. NOAA has determined that no company, nor even NOAA itself, could have been able to come in and adequately run this system on June 1, 1984, without major assistance from the present contractor, ERA. ERA can run it because they helped develop it, but there are no documented operating instructions to guide someone new. In retrospect, it was a poor management decision to allow bidders to use the current system. Those management personnel who made that decision are no longer in NOAA.

Question. Is it true that MCRB's contract was extended on August 3 in spite of a recommendation by the contracting officer's technical representative that the contract be declared in default? If so, why?

Answer. Yes, the partial transition period was extended to allow for a reevaluation of MCRB demonstrated capability to perform the order processing services. The parallel test procedures did not result in a valid evaluation of MCRB's capabilities due to improper management of the test.

Question. What problems were noted in NOAA's testing procedures that led to the contract extension in August?

Answer. In the parallel test both companies were to be given the same chart orders to input into the system. For unknown reasons the companies were given different numbers of order records to input. Additionally, the orders were sometimes accumulated for several days and given to MCRB which required a large use of overtime on the part of MCRB and caused an unfair environment for a valid parallel test.

Question. What is being done to correct the procedures?

Answer. The COTR has been instructed to more carefully monitor the provision of order records to MCRB so that MCRB receives the proper orders in the appropriate series in a timely manner. MCRB shall be required to demonstrate its capability to perform the order processing services by assuming on-line responsibility for IADS on September 4. Their performance shall be evaluated against the minimum performance standards of the Statement of Work.

Question. How many hours of in-house personnel have been devoted to assisting MCRB's phase-in and its current contract operation?

Answer. Approximately 7,400 hours have been devoted to this total effort which started in September 1983. This time encompasses COTR time, assisting and moni-

toring the physical distribution functions and the Government ADP Support, assistance, monitoring, and evaluation role.

Question. Is MCRB still reimbursing the government $18,000 per week to cover on-going ADP operations by ERA or does NOAA pay both ERA and MCRB for the computer operations?

Answer. Since August 1, 1984, NOAA has paid both ERA and MCRB for computer operations. The extension of MCRB's partial transition period since then has been for the Government's benefit to devise and conduct a proper evaluation of MCRB's order processing capabilities. It is the fault of the Government that the previous test was invalid. Therefore, we cannot penalize MCRB for the Government's mistakes.

NATIONAL SECURITY

Answer. On January 6, 1984, the new Director of DMA, Rear Admiral E. A. Wilkinson, wrote to NOAA Assistant Administrator Wolff recommending that NOAA seek an exemption from A-76 for its vessels, facilities, equipment, and personnel on the grounds that "it was not considered purdent to contract the capability that may be required to support military activities in wartime."

Question. What steps have you taken to respond to the recommendations of the Defense Mapping Agency?

Answer. No action has been taken to respond to DMA since no response was required. R. Adm. Wilkinson is entitled to his opinion. NOAA does not agree with his position. A determination in this area is reserved to the Secretary of Defense. NOAA would not follow such a finding by the Secretary of Defense unless DOD then provided base funding for the ships and charting operations.

Question. The DMA witness has testified that "any degradation of the current output of NOAA's charts in terms of quality, quantity, and timeliness would have a severe consequence on the defense of the U.S." In view of this national security aspect and DMA's exemption from the A-76 process, why aren't the nautical and aeronautical charting functions of NOAA also exempt from A-76?

Answer. First, NOAA does not intend to suffer any degradation of the current output of NOAA's charts.

OMB Circular A-76 specifies that exemptions from the A-76 process for reasons of national security must be requested by the Secretary of Defense. NOAA was advised by the Office of Management and Budget that the Secretary of Defense had no plans to request an exemption. Also, I would like to reiterate that NOAA is only considering possibly contracting out functions similar to those that have been contracted out by DOD (DMA) for many years.

Senator STEVENS. As I indicated, my apologies to Mr. Warner, Mr. Scuilla, and Mr. Cisar. We will be in contact with you—they are witnesses that were to appear today—on the rescheduling. Thank you all very much.

[Whereupon, at 12:27 o'clock p.m., the hearing adjourned.]

ADDITIONAL ARTICLES, LETTERS, AND STATEMENTS

STATEMENT OF HON. PAUL S. SARBANES, U.S. SENATOR FROM MARYLAND

Mr. Chairman, I greatly appreciate the opportunity to submit testimony to the Committee concerning proposals by the National Oceanic and Atmospheric Administration to contract out the operations of the nautical and aeronautical chartmaking components of that agency. In my view, this proposal is not only ill-considered and uncalled for, but gravely jeopardizes the safety of those who navigate our skies and waterways and those who live along those thoroughfares. I have closely followed this proposal since its inception and have yet to discern any efforts by the National Oceanic and Atmospheric Administration to ensure that the current high level of quality represented by NOAA charts would be retained or that such a radical recomposition of this agency has been carefully considered or indicated by either cost considerations or the prospect of a significantly better product. On the contrary, it has been my understanding that each of the government agencies involved with the production and utilization of these charts as well as those who use them in the skies and upon the water, feel that a heavy burden of proof rests with NOAA to present a clear case why a commercial operation would be as accurate, responsive and competent as the present structure. It is my own judgment that this standard has not been met.

Mr. Chairman, the production and distribution of nautical charts has been a function of this government since Thomas Jefferson established the U.S. Coast Survey in 1807. The complexity of these charts as well as efforts to continuously update and distribute this vital information to pilots and mariners is directly related to the comparative safety of navigation in these media. A precipitous shift from the fine service we now enjoy from NOAA to an uncertain performance by contract, the details of which have yet to be finalized or disclosed, seems to me to be a grave mistake.

I am also troubled by a number of legal aspects related to a transfer of this type of function to commercial contractors, particularly the issue of liability in the event of an error in one of these charts precipitates an accident. As you know, the Congress has taken steps to address this concern in respect to government gencies, however it is unclear to me what implications this may hold for either the United States or a commercial contractor should litigation under these circumstances be entered into. It is my understanding that the Justice Department has advised the Administrator of the National Oceanic and Atmospheric Administration that a contractor would be required to carry as much as $50 million in liability insurance to protect itself against accidents of this nature. The final determination of this liability question has not, to my knowledge, been resolved, nor has the question of the costs of the insurance and its effect upon cost comprisons with in-house performance.

In addition, I am most disturbed about the approach to this particular contract proposal by officials at NOAA, many of whom seem to have made the decision to convert to contractor performance without the benefit of either a thorough cost review or a close consideration of the consequences of such an action. There have been newspaper accounts of NOAA employees being removed from their positions for criticizing contractor performance as well as clear indications that the top management of NOAA attempted to accelerate the A-76 process to avoid the impact of Congressional review requirements contained in S. 1097.

Mr. Chairman, we now enjoy a system in aeronautical and nautical chart production that is without an equal in the world. It is comprehensive, responsive and flexible enough to react to time sensitive changes in charting requirements. The alternative proposed by the management of the National Oceanic and Atmospheric Administration is, at best, an uncertain gamble involving the lives and safety of those who must navigate our waters and air corridors. It seeks to replace the performance of 177 years with an insufficiently studied proposal driven by a goal of short term

budgetary savings. I would urge my colleagues to assess this proposal for what it actually is and recommend that it be rejected by the Senate.

STATEMENT OF ROBERT T. WARNER, AIRCRAFT OWNERS & PILOTS ASSOCIATION

I am Robert Warner, Senior Vice President, Government and Public Affairs for the Aircraft Owners and Pilots Association (AOPA). I appreciate the opportunity to appear before the Subcommittee on Transportation, Aviation and Materials to express AOPA's views on the subject of NOS aeronautical charts.

The Aircraft Owners and Pilots Association (AOPA) represents the aviation interest of more than 265,000 individuals who own and fly general aviation aircraft for business and personal transportation. AOPA is one of the largest civil aeronautical chart distributors, and its members use more NOS aeronautical charts and related products than any segment of the civil aviation community.

GENERAL

AOPA has watched with increasing concern as NOAA leadership has aggressively imposed a battery of management efficiency studies on various elements of the National Ocean Service (NOS). Some of these studies, ostensibly conducted under the guidelines of the Office of Management and Budget (OMB) Circular A-76, have been contracted to the Arthur Young Company at a cost according to NOAA of more than $500,000. OMB Circular A-76 challenges government agencies to identify activities which can be more economically accomplished by the private sector. It proposes that they should then "contract out" such efforts when clear cost advantages exist and when the functions are not governmental in nature.

AOPA applauds the intent of the A-76 initiatives but has reservations regarding its application within NOS. The economies to be achieved are doubtful, strong arguments exist that charting is inherently governmental, that the responsive high quality service upon which public safety depends does not seem assured, and that serious questions regarding liability have not been resolved.

AERONAUTICAL CHARTS AND RELATED PRODUCTS

The only large concentrations of aeronautical cartographic expertise in the United States are vested in the Defense Mapping Agency (DMA) employing 9,300 people with an annual budget of $603 million and the NOS with 500 people and a budget of $50 million. The two organizations share a data base and some production efforts. Both organizations have elected to contract out some of the less technical activity inherent in chart production before the current controversy regarding A-76 began to force the issue at NOS. What is particularly important is that NOS has met civil and governmental requirements for complex chart and related products to such a great extent that the safe and effective operation of the National Airspace System now depends upon their timely distribution and use. Even DMA requires NOS products in fulfilling its commitment to Department of Defense (DOD). There is no way to estimate the devastating effect that forecast interruption in NOS chart production or distribution would have on the nation's economy, but there is no doubt that the safety and utility of general aviation would be severely degraded.

General aviation's transportation and utilitarian operations as well as public safety demands the availability of NOS aeronautical charts and related products which continue to meet existing standards of accuracy and timeliness.

Aeronautical information disseminated by the FAA's National Flight Data Center reflects the dynamic nature of the National Airspace System (NAS). Several thousand data changes occur during each 56-day cycle. Changes are provided to NOS daily by National Flight Data Digest (NFDD) for incorporation in various chart products. Information is obtained and verified by NOS from other sources as well, but the tremendous volume of NFDD input alone demands highly responsive technical capability to guarantee publication with FAA specified effective dates. A high degree of competency and technical awareness is necessary to ensure that errors contained in source material are identified and data corrected prior to publication. The alternative to processing these volumes of data is to reduce the frequency with which changes are made to the NAS. Such option my not be palatable since the airspace system then is less responsive to aviation user and mandated safety requirements.

Different NOS civil products have differing considerations:

Instrument flight rules products.—Although technical in nature, these publications lend themselves conceptually to automated processing and perhaps to printing

outside of NOS. They involve relatively simple processes and are a simple graphic presentation of FAA procedures. However, the simplicity of the process should not be confused with the need for accuracy. These are used as the primary navigation reference for flights operating in weather conditions which preclude visual operation. They ensure that aviation can meet consumer travel needs by permitting operations during poor visibility. NOS data is the basis for all such navigation, as these products depict airways, radio aids, and altitudes dictated by rulemaking action.

Increased use of high technology avionics and navigation systems by some portions of the aviation community will press for electronic software to supplement existing paper products, but the demand for faithful reproduction of the National Airspace System in this data will continue. National Ocean Service is active in the transition to such automated production.

Visual flight rules (VFR) products.—Visual charts are the most complex of all products. They combine the detail, shaded relief and hypsometric tinting of highly accurate topographic charts, and aeronautical information necessary to comply with federal aviation regulations, and selected radio navigation data. Position determination and successful navigation to destination depend upon faithful reproduction of myriad features on the earth's surface, as well as conceptual and legally binding airspace boundaries. Cartographic judgment in selecting and placing symbology, interpreting and validating source material, dictates the accuracy and utility of this effort.

While some very advanced technology permits limited automation of VFR chart production the expense today is prohibitive. The multicolor format demanded by Interagency Air Cartographic Committee (IACC) specifications requires sophisticated printing press capability not generally available in the civil sector.

Aeronautical information products.—Other documents, such as Airport Facility Directories have more general application. They are somewhat less critical in terms of accuracy but have a high degree of correlation with the IFR and VFR charts they supplement. To that extent they should not provide information which conflicts with or contradicts other products or Federal Aviation Regulations. The potential for automated production and data base maintenance suggests that economies could be obtained by successful automation of elements of production of these products. NOS has such an effort currently underway.

A-76 STUDY OF NOS

Results of the A-76 study conducted in NOS have not been made widely available even though the recommendations have great significance to users of NOS charts and flight information publications. AOPA's request under the Freedom of Information Act for the studies related to two of NOS branches was denied by James W. Winchester, Associate Administrator of NOAA. Only after Congressional hearings pointed to NOS failure to coordinate did NOAA seek help, this July, in obtaining "information about products and services—which should be turned over to the private sector" from such user groups as AOPA. It appears quite late in the process to be initiating dialogue with the users on the legal and safety ramifications of the proposed actions.

At the same time NOS has been directed by NOAA to proceed with Phases Two and Three of the A-76 process, which includes the actual pricing out of costs in the private sector. This action comes despite assurances by NOAA that decisions have not been made and that additional activity would be subject to notification of Congress.

AOPA shares the concerns of others including members of Congress who believe this investigation of A-76 potential should proceed with caution. We are not necessarily opposed to contracting NOS activities to the civil sector, because there are probably certain functions that exist to which economies could accrue if contracting took place. However, AOPA is opposed to the precipitous and dogmatic approach suggested by the Young Study.

The ability to bring about certain economies in the contracting process is made possible by reducing the quality control and quality assurance of the end product. Currently NOS validates 100% of the tens of thousands of items that are shown on aeronautical charts. It has been suggested in some cases that such validation would be reduced significantly to a random sample. The safety of the aviation community and that of the public depends on a "near perfect" product. A five percent random sample is inadequate.

It seems apparent to us that voluntary initiatives of the Aeronautical Charting Branch, in contracting more than a third of its $12 million budget and seeking to

automate major elements of its activity, speaks well of the desire to provide high quality service in the most cost effective manner. We feel that capricious implementation of Arthur Young's recommendations will destroy NOS funding, gut it of technical expertise and paralyze its reponsiveness to user requirements. Further, AOPA finds a unique paradox in NOAA's attempt to dismantle an organization which Young finds "well managed" and whose "products are of a very high quality and are produced on time within the tight, rigid schedules mandated by the FAA. Employee morale is high as is user satisfaction with ACB products." Of course, there are also numerous international implications of significant changes in the U.S. aeronautical charting situation.

AOPA also questions the validity of NOAA's rush to contracting in face of their own conclusion that success will be dependent on proper controls being in place to ensure quality. According to division cartographers, acquiring these controls depends on completion of the Aeronautical Chart Automation Program (ACAP) under way within the Division. ACAP will absorb the aeronautical information data base. It will provide validated software containing time critical aeronautical information for release to potential contractors. We believe new capability may have the potential by 1988 to achieve essentially the same economies within the Aeronautical Charting Division, as the Young Study proposes, and it has applicability in other divisions of NOS as well. Of ACAP Young says "The criticality of the accuracy and timeliness of Aeronautical Charting Division is without question and this system effort will improve division performance in both factors." ACAP will eventually provide requisite control of contractor performance. The study recommendations, seemingly supported only by senior NOAA officials, preempt an orderly transition to contracting, rather than facilitating it.

DISTRIBUTION CONTRACT

Skeptics soon will have a vivid example of the folly of NOAA's decision to contract without careful phasing in or retained in-house capability. Full contracting of distribution began June 1st of this year. Contractor performance problems did not delay implementation nor dissuade NOS from releasing employees in the Distribution Branch. To date, the contractor, MCRB, has not demonstrated ability to perform and a second contractor has been retained to avert a default by assisting in requisite ADP work. Meanwhile penalties have been levied which in a short time will exceed the total value of the contract. How long MCRB can absorb such a loss is not known, but this committee should carefully question the contingency plan which ensures that critical documents reach general aviation users if the contractor cannot continue.

The $18,000 per week expense of this second "bail-out" contractor could have been prevented and, in fact, was predicted by the Contracting Officer's Representatives (COTR). Unfortunately, the COTR has been dismissed of his duties.

STATEMENT OF KENNETH T. BLAYLOCK, NATIONAL PRESIDENT, AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES [AFL-CIO]

The American Federation of Government Employees, which represents over 700,000 active and retired government workers, including the employees of the National Oceanic and Atmospheric Administration (NOAA), appreciates the opportunity to testify on the contracting-out of NOAA's aeronautical and nautical charting functions.

As the Subcommittee is aware the Reagan Administration instructed the National Oceanic and Atmospheric Administration, a component of the Department of Commerce, to study the feasibility of converting government activities to private contracting. The Arthur Young Company hired by NOAA to do the study, has determined that the aeronautical and charting functions are commerical and should be turned over to the private sector.

The Arthur Young Company was paid approximately $140,000 to do Phase I of the study, which was to determine whether these activities are governmental or commerical; to recommend the most efficient organization if it is determined that the functions should be retained in-house; and to recommend for contracting-out activities that are found to be commercial in nature.

The study was done by a team of people conspicuously lacking in any relevant technical expertise. While competent in areas related to management and accounting, not one member of the team was a cartographer. Basic principles of cartography had to be explained before NOAA could begin to describe its work. This lack of knowledge became painfully and increasingly evident as the study progressed,

making it necessary for agency employees to rewrite most of their material, at a cost in excess of $100,000, to ensure an accurate account of our functions.

While promising to keep everyone informed and involved in the study process, information and critical documents have been withheld by NOAA administrators, and employees have been told not to talk to the press.

James W. Winchester, the Assistant Administrator of NOAA, has made statements quoted in The Washington Post that indicate a clear bias against government workers. When he said "There are many, many, many more qualified cartographers in the private sector than in the government," he evidenced complete ignorance about his own agency and the professionalism of the employees he was hired to manage. OPM has determined the qualifications required for government cartographers. We challenge Mr. Winchester to find a single private cartographic firm with the same requirements. In addition, aeronautical cartography is a highly specialized discipline, unique in the field of cartography. Maryland Representative Steny Hoyer has stated "It is the highly talented and experienced employees at NOAA who have developed a safe and navigable air system that is the envy of the world." This expertise requires years of on-the-job training. NOAA employees have the right to a competent, and unbiased study before they are given their walking papers.

Aeronautical charts are critical to navigational safety. They are produced on rigid schedules and must be in the hands of the air traffic controllers and aircraft pilots on specified effective dates. The cut-off dates for the information contained in the products create very tight production schedules. Failure to meet a required effective date results in the issuance of nationwide teletype notices through the FAA communications system to avert potential loss of life, destruction of property, and the possibility of very costly litigation. For both commercial and non-commercial air traffic, accurate and timely charting of the airways can be a matter of life and death.

Maintaining quality control and meeting the demands of airspace "effective dates" would be impossible under a multiple contract system; yet such concepts as separate contracts for compilation, aerial photography, printing and distribution of a single product are presently being implemented by NOAA.

The National Ocean Service (NOS), as well as the Defense Mapping Agency (DMA), has tried to contract out mapping with absolutely disastrous results. DMA has stated that 10-30% of the work that is done by private contractors has been late or has had to be redone. The in-house error rate, however, is within 12%. Distribution, the first charting function to be turned over to private contractors, is in serious trouble. MCRB, the company hired to distribute nautical and aeronautical charts, has failed to demonstrate the ability to fulfill the terms of their contract. Rather than cancel the contract, NOAA removed the contractor officer's technical representative who criticized MCRB's performance. The RDS contract was then extended to assist MCRB with their production requirements. Still, the charts are being delivered late or sent to the wrong destination.

NOS produces all the special products used by FAA to safely control air traffic, including data to support the Minimum Safe Altitude Warning (MSAW) System. MSAW has been credited with several life saving efforts. For example, the near disaster two years ago when an Argentine aircraft came close to colliding with the World Trade Center in New York. The pilot allowed his aircraft to descend 1,000 feet below his assigned altitude. The MSAW System alerted the controller who in turn ordered an immediate climb to a safe altitude.

Contracting NOD functions could cost the taxpayer far more money than NOAA hopes to save. Attorneys from the Justice Department Torts Branch have stated that it is against departmental policy for the U.S. to indemnify contractors for their losses and that we would have to require the contractor to obtain necessary insurance (possibly as much as $50 million per accident), to indemnify the U.S. and to agree to have the Justice Department participate in the defense of any lawsuit. Justice's concern derives in part from a recent case holding Jeppesen Sanderson, a private producer of aviation charts, strictly liable in the amount of $13 million, for a World Airways airplane crash in which Jeppesen chart was used.

Government and private groups are becoming increasingly critical of the A-76 process in NOAA. The Defense Department, the FAA, the Coast Guard and the Aircraft Owners and Pilots Association have publicly stated their concerns for public safety if NOAA charts and related products are contracted out.

We would like at this point to insert for the record the statement of the North American Cartographic Information Society (NACIS), on NOAA's contracting-out study:

"NACIS is concerned that inherently governmental functions are being considered by the Administration for contracting-out, and this is clearly not in the public

interest. The problem of contracting-out is compounded by the obvious poor planning and execution of these studies by NOAA's upper level management.

"NACIS staff members have evaluated the situation at NOAA and offer the following comments:

"1. Circular A-76 should not be applied to mapping, charting, and surveying services such as NOAA's, because it is not in the public interest to do so.

"2. Circular A-76 does not provide for consideration of quality of the service in evaluating services to be contracted out and thus it is improper to apply it to the mapping, charting, and surveying services which are directly related to the safety of the public.

"3. Data acquisition, data and source material evaluation, data selection and data management for maps and chart compilation and generalization, construction (including preparation of negatives), review, printing, and distribution are interrelated functions which have been for the major part governmental functions for centuries. In the case of nautical and aeronautical charting, NACIS feels that the public interest is best served by the government's in-house execution of these functions. The letting of separate contracts for these various activities would be a terrible mistake with attendant loss of management control of these critical navigational products.

"4. The concept of statistical sampling for quality control of the aeronautical and nautical chart products is unacceptable. NOAA management has proposed just this technique after accepting contractors' recommendations in initial A-76 study findings. The public interest and safety would not be best served by such an ill-advised shift from a 100 percent review of all products.

"5. The liability issue has not been properly addressed by NOAA and this issue must be resolved. In particular, the issue of who is responsible for the errors of a contractor that goes out of business suddenly or one that is no longer under contract to the government must be answered to protect the safety of the public.

"6. The NOAA timetable for contracting-out is unrealistic; to properly contract out these complex activities would take several years—not a few months as indicated in NOAA's A-76 milestone.

"In summary, the NOAA A-76 plan seems to be premature and poorly developed. To protect the public interest, NACIS urges the Congress to pass legislation to halt this poorly conceived and managed effort of NOAA to contract out its mapping, charting, and surveying activities."

The Coast Guard and Navigation Subcommittee held an oversight hearing in April on the contracting plans in NOAA. At the request of 31 Members of Congress, the GAO is conducting an investigation of NOAA A-76 management practices. Legislation that would give Congress an opportunity to review the contracting process in NOAA was passed in the House by a 2 to 1 margin.

We urge this Subcommittee to take a strong stand against NOAA's decision to contract out these functions and, if necessary, to pass legislation to prevent NOAA from doing so.

Again, we wish to thank the Subcommittee for giving us the opportunity to testify.

STATEMENT OF MICHAEL SCIULLA, VICE PRESIDENT, BOAT OWNERS ASSOCIATION OF THE UNITED STATES

Mr. Chairman and Members of the Committee: I am Michael Sciulla, Vice President of Boat Owners Association of the United States. With overe 155,000 members from all fifty states, Boat/U.S. is the largest national organization of individual boat owners in the country. I very much appreciate the opportunity to appear before you today and express our concerns about the efficacy of contracting out to the private sector the production of National Ocean Service (NOS) nautical charts.

Mr. Chairman, we are not privy to the Arthur Young study upon which NOAA is basing its decision to contract out the production of nautical charts. Nonetheless, we are acutely aware of the profound impact such a decision could have on the recreational boating community, who purchase 84 percent of all NOS nautical charts.

Nautical charts, Mr. Chairman, are the road maps of our nation's waterways. But, unlike road maps which show the shortest distance between two points, nautical charts are the bible of safe navigation. They show the proper path between the rocky shoals. The consequences of straying from this path, in terms of using an outdated or inaccurate chart, can be immediate and unforgiving.

We believe that the interests of public safety demand that any major dismantling of a government function, particularly one which has been the responsibility of government since the Republic was founded, be fully and independently justified both

in terms of specific costs saved and specific benefits derived before any final decision is made.

We are concerned, Mr. Chairman, that Administration officials are changing a governmental process that functions well. We question the wisdom of tampering with a highly technical service which is respected around the world and which produces a reliable product, on time, and at a fair price.

We are interested in knowing, Mr. Chairman, specifically how much money NOAA believes it will save by contracting out this function to the private sector. Only when this precise amount is known will one be able to assess whether the estimated cost savings are sufficient to justify the potential cost to public safety should the private contractor fail to deliver.

We are concerned, Mr. Chairman, because once a decision is made to eliminate the skilled cartographic positions in NOS, that the costs of reversing this decision, should the contractor fail to fulfill the contract, will far outweigh any short term projected savings.

We are interested in knowing, Mr. Chairman, precisely what functions NOAA is contemplating contracting out. Is it just the basic chart printing or does it involve skilled production techniques which require expertise in nautical cartography?

We are concerned, Mr. Chairman, for the quality of nautical charts, should they be contracted-out. We are interested in knowing the safeguards NOAA has devised to assure that existing quality standards will be maintained.

We are interested in knowing, Mr. Chairman, what experience NOAA has had in contracting out other NOS functions. What are the results of NOAA's decision to contract out the distribution of government charts? Has the contractor been able to fulfill the contract within the necessary time frame and within budget?

We are concerned, Mr. Chairman, that NOAA proposes to contract out a highly technical service while the Defense Mapping Agency, which has considerable expertise in this area, only chooses to contract out relatively minor printing functions.

We are interested in knowing, Mr. Chairman, what expertise in nautical cartography the principal author of the Arthur Young study has to judge the merits of the NOS production function.

We would point out, Mr. Chairman, that although the law is murky, it appears that the government would still need to certify and assume full responsibility for the accuracy of charts even after a private contractor is found to assume liability insurance in the amount of $50 million per incident.

According to a recent market study undertaken for NOAA by Market Facts, Inc.: "NOAA products are the preferred charts among all segments of boat owners." They are preferred, the study concludes, because of complete detail, because they are accurate, because they are up-to-date and because of their clarity and high quality.

It is these very qualities, Mr. Chairman, to which NOAA appears indifferent. I would recommend extreme caution until NOAA can satisfy all parties concerned that what they are attempting to do is not only in the short term budgetary interest of the current and temporary guardians of nautical safety, but also is in the long term public interest.

Contracting out government functions to the private sector is something the government should do if it can be done safely and efficiently. However, we have heard little to date and too many questions remain unanswered, Mr. Chairman, for the users of these products to conclude that the contracting out of nautical charts is appropriate at this time.

On behalf of our Association members, I would like to thank you again for the opportunity to express our concern. I will be happy to reply to any questions.

STATEMENT OF CAPT. CLAYTON CISAR, PRESIDENT, POTOMAC RIVER PILOTS ASSOCIATION

We in the Potomac River Pilots Association, a group of professional captains, most of whom make our livings on the water, are deeply concerned about a management efficiency study of the Marine Chart Branch, NOAA, which could affect the safety of our passengers, our crews, our vessles, and our cargoes.

Arthur Young and Company, an accounting firm with no expertise in nautical cartography, was hired to do the study. Their recommendations show an appalling lack of knowledge of the tools our lives depend on—nautical charts, Notice to Mariners, Coast Pilots, and other related marine publications. Charts are not simple road maps that indicate directions, they are living documents that tell us of shoals, wrecks, lights, buoys—conditions that change day to day everywhere mariners sail. The weekly Notice to Mariners warns us immediately of these changes and other

short term hazards such as dredging operations, temporary obstacles, bridge construction, oil rig operations. These hazards could sink our vessels and take our lives if we come upon them without warning.

One example of the shallow scope of the Arthur Young study is the report's recommendation that multiple-scale charts not be produced. The report's authors do not seem to understand the fundamental principle that harbors and narrow waterways have more obstacles than open sounds and coastal waters. Do they recommend printing hundreds of large-scale charts of open water where there are few hazards in order to show harbors such as New York and Baltimore at a useful scale? Or would harbors be shown postage-stamp size at the same scale as the New Jersey coast or the open ocean? Anyone who has sailed on the waters of the United States, recreationally or professionally, understands the value and ultimate economy of multiple-scale charts.

As another example, the Arthur Young study sees no need for overlapping chart coverage. The report's authors obviously never have used charts. Many of us in the Potomac River Pilots Association have navigated unfamiliar waters at night in cold, driving rain when we thanked God for a accurate chart on sturdy paper that showed our course on one sheet. A mariner's nightmare is to follow a winding course into a harbor using several butt-joined sheets.

We are concerned, too, about the study's casual dismissal of the need for prompt evaluation and timely dissemination of the Notice to Mariners. This has dire implications for those of us who make our livings on the water. Notice to Mariners, a weekly publication, is recognized worldwide as an essential and efficient means of disseminating critical marine information during the period the next edition of a chart or publication is being produced.

We understand that one of the study's recommendations is to turn certain functions of the Marine Chart Branch over to the private sector. Members of the Pilots Association operate the Potomac River's tug boats, oil barges, cruise boats, fishing boats, charter yachts, ice breakers, fire boats, police boats, salvage vessels, delivery boats, historic vessels—the entire range of watercraft. We feel more than a little uncertain about operating our vessels in unfamiliar waters depending on a chart prepared by the lowest bidder. Having worked for 25 years as a manager, I can attest that performance by the lowest bidder, more often than not, leaves much to be desired. NOAA itself is experiencing problems with the "lowest bidder" contractor that has taken over distribution of marine and aeronautical charts as of 1 June 84. This contractor appears to be placing new and updated charts on the bottom of the stack and sending out the obsolete charts until they are depleted. As of 1 July NOAA had received over 36 complaints due to this lowest bidder's performance. Fourteen (14) involved old edition charts being sent out, seven (7) regarding the wrong chart being sent, five (5) regarding damaged charts, nine (9) order not completed and one (1) for late delivery. NOA had to go to the contractor and make sure that old charts were destroyed.

Several questions concerning the Arthur Young study need to be addressed:

1. What did NOAA contract for in the Arthur Young study?

2. Why has NOAA spent $357,000.00 on the study so far, $98,000.00 to Arthur Young and $259,000.00 in house for support and follow up of the study?

3. Will these funds be taken out of the funds for the Marine Chart Branch, the subject of the study? If so, what effect will this have on the production for the Branch, when valuable time for upgrading and development of charts has already been lost because of employees being detailed for support of this study?

4. Arthur Young, an accounting firm, seems unqualified to make a study of marine cartographic procedures. On what basis was the firm selected to make this study? Why didn't NOAA insist on a knowledgeable cartographer being included on the study team? The only cartographer on the team was from the U.S. Department of Agriculture and was associated with making of soil conservation maps—these have no relation to marine charts.

5. What expertise did Arthur Young rely upon to make the following recommendations:

a. To contract out to the private sector marine charts, Notice to Mariners, Coast Pilots, and other related marine publications

b. To discontinue the production of multiple-scale charts (large-scale charts show harbors and hazardous areas in greater detail to include navigational marks, submerged pilings, piers, etc.; small-scale charts show greater areas of coastal waters and ocean where detail is not critical)

c. To discontinue the production of overlapping coverage (overlapping coverage enables a mariner to navigate sinuous river courses, for example, using one chart rather than attempting to follow a course while holding two butt-joined charts)

d. To decrease the frequency of publication of Notice to Mariners (a weekly notice that gives timely warning of new or short-term hazards, such as dredging, wrecks, shoaling, displaced buoys, etc.)

6. According to the press, an in-house report was written concurrently with the Arthur Young study. How do its conclusions compare with the Arthur Young study? What criteria was used to evaluate the conclusions of the two studies? How did they determine which one was correct? Arthur Young gave no support for it's conclusions whereas the in-house report included a detailed appendix of data that Arthur Young did not even consider.

7. If the Arthur Young study's recommendations are implemented, what assurance is that that the user will continue to have the quality and timeliness we have come to depend on?

8. Only two government mapping agencies exits-NOAA and DMA. Mr. Winchester stated in the Washington Post that there are many more cartographers in the private sector than in government. However, figures from the American Congress on Surveying and Mapping show that 80% of the cartographers in the U.S. work in these agencies. Where will Mr. Winchster get these private industry cartographers? From the ranks of those he expects to RIF when he farms out the charting functions?

9. Why hasn't NOAA Administration solicited comments from user groups such as the U.S. Coast Guard and the various Pilots Associations as directed by the House Committee on Merchant Marine and Fisheries? This, to my knowledge, has not been done and although I expected to hear from them, I am still waiting.

The Potomac River Pilots Association agrees with the American Pilots Association that charting responsibilities and liabilities should remain within NOAA and as in the words of the old philosopher, "If it ain't broke—don't fix it!!"

Statement of Alan L. Olson, National Weather Service Employees Organization

Senator Stevens and members of the Committee: I am Alan Olson, a Weather Service Specialist with the National Weather Service and a member of the National Weather Service Employees Organization.

I appreciate this opportunity, on behalf of our Organization, to submit a statement on the general process of NOAA's efforts to contract out various activities and services under OMB Circular A-76.

Our major concern in the continuing movement to contract out government activities under A-76 occurs in the areas of public service and public safety. We wonder if "The users of our products and services are being affected detrimentally"; i.e., are they gaining or losing by contracting out?

It is true that A-76 provides for a management efficiency study which determines if the cost of contracting out is at least 10% less costly than the in-house cost of providing the same service or product. However, the A-76 process (at least in the early stages) does not provide for a "dissenting voice". Management alone "determines whether or not the criteria for contracting out are satisfied before a contract is awarded". Another fallacy is the determination on whether or not a function is "inherently governmental" or not. This determination generally rests "with the same management that has been instructed" to attain some "goal" of contracting out.

There are undoubtedly certain single functions that a contractor can do as good as or better than that provided by in-house personnel. However, few positions in NOAA, at least, are "single functions". Does management establish a value for those "other" duties performed by the in-house personnel in addition to the single function slated for contracting out for the purposes of "cost comparison"? No.

Let me cite a few examples that I am aware of:

Karol Scott is a chartist for NOAA at the Sand Point Facility in Seattle, WA. In addition, this lady is also the EEO Counselor for NOAA for the entire Pacific Northwest. NOAA continues to tout the value of its employees and its EEO Program but is this additional duty included in the cost comparison for contracting out the marine charting unit? I doubt it.

NOAA entertained the idea of contracting out the upper air observation unit at Vandenburg AFB. The Air Force, when approached, decided that contracting out this function was not a good idea. NOAA lost the unit because the Air Force took it over. Was there a "cost savings?" I doubt it.

WSMO Quillayute, WA (an upper air and surface observation site) was contracted out. There were many appeals in this case to reconsider. A number of illegalities

and irregularities in the awarding of the contract were brought forth in these appeals. All to no avail. An excellent example of the Administration's "appeal process". As a result, quality of observations fell; the local area had no more "public service"; no one locally to go to the local schools to conduct learning sessions; no one to brief pilots; no one locally to call for the current temperature or extended forecast or general weather question; and no one on hand locally during severe weather or storms. In short "no more local weatherman or local service." Was any of this considered in the "cost comparison"? Of course not.

Stampede Pass, WA was contracted out. The first contractor could not come to terms and lost the contract. These employees were then hired temporarily as "Civil Service" employees until another contractor could be found. Is this "cost effective"? NOAA thinks so but I find it hard to tell.

Now NOAA is attempting to contract out observations at airport weather offices at several key major airports (i.e., Kennedy, LaGuardia, Newark, Chicago and Los Angeles). The safety of potentially millions are at stake. An analogy to an aeronautical or marine chart with a mistake that causes a danger. Any way, the current in-house employees at these airport offices are multi-functional with duties including briefing national and international flights, forecasts, public contact, warnings as well as the observations to be contracted out. Were these "other" duties considered in the plan to contract out? Obviously not or it would never have been close to being "cost effective".

As an interesting note as to liability. The recent weather related crashes at Washington, D.C. and at New Orleans occurred at airports with contract weather observations. Was this a factor? Could in-house personnel have prevented these crashes? Hard to tell but the government could face gigantic legal liabilities.

To sum up, contracting out of certain government functions can make good sense. Much of NOAA is, however, multi-functional. These functions should be considered "inherently governmental" especially those products and services that protect public safety. To waste taxpayers monies on "management efficiency studies" of these obviously in-house functions is appalling.

AMERICAN CONSULTING ENGINEERS COUNCIL,
Washington, DC, July 20, 1984.

Hon. TED STEVENS,
Vice Chairman, National Ocean Policy Study Committee, Washington, DC.

DEAR SENATOR STEVENS: The American Consulting Engineers Council (ACEC) respectfully requests that the following statement be made a part of the hearing record of the Policy Study Committee, and that of the Senate Commerce, Science, and Transportation Committee, concerning National Oceanic and Atmospheric Administration (NOAA) contracting for mapping and charting services.

THE ROLE OF THE ENGINEER IN MAPPING AND CHARTING

The American Consulting Engineers Council is composed of over 4,000 private engineering firms across the nation, including many that provide engineering expertise ancillary to the development of maps and charts used by the private sector as well as federal agencies.

Engineering as a profession is characterized by constant and continual searches for innovative solutions to problems or conditions which did not formerly exist. The engineer is an inventor; his inventions are ideas that expand the range of physical possibility.

QUALIFICATIONS AND QUALITY AS CONTRACTING CRITERIA

Federal recognition of the "ingenuity element" in engineering has existed since enactment in 1982 of Public Law 92-582 (Title IX, Federal Property and Administrative Services Act of 1949 (40 U.S.C. 541 et. seq.)). This statute mandates that contracts for architectural, engineering, and related services shall be awarded to the most technically qualified firm which can provide the services to the government at a fair and reasonable price.

FEDERAL CONTRACTING FOR NOAA-PROVIDED SERVICES

There are many technical services related to the production of NOAA's charts that are standard engineering functions, centering on gathering and tabulating raw data necessary for accurate production and drafting of displays and charts. ACEC members have established a reputation as reliable and experienced providers world-

wide of the kind of services for which they would compete if NOAA were to implement an aggressive contracting program. Such services include geodetic and other studies, surveys, mapping, aerial photography and photogrammetry (including cross sections and profiles), hydrographic and hydrological surveys, seismic analyses, legal boundary descriptions, geothermal studies, oceanographic engineering, plotting environmental impact studies, transmission line route surveys for pipelines, orthophotography, planimetric mapping and photo reproduction, tellurometry, hydrogeology, aerotriangulation from maps and aerial photos, hydropower development, and sonar studies. The firms have on staff employees experienced at executing these functions; they also possess the modern, accurate, and reliable equipment so necessary to staying in business in our very competitive profession.

OMB CIRCULAR A-76

Working as NOAA contractors, engineering firms would be subject to the cost comparison process described in Office of Management and Budget Circular A-76. This process stipulates that a function may be performed by federal employees only after the agency has ascertained that it meets all the following criteria;

There is no satisfactory commercial source available;

Procurement from a commercial source would cause an unacceptable delay or disruption of an essential program (requires a written justification);

The activity is performed at a government hospital; or

The government can provide the service or product at a lower cost than any commercial source.

OMB Circular A-76 requires that all federal agencies inventory every service or product they provide, then conduct a cost comparison study on each service or product to determine how it can be provided most cost-effectively (i.e., by contractors or by government employees). It is our understanding that 36 NOAA cost comparison studies concerning services that could be performed by the private sector are scheduled or are in progress. Estimated annual budget for the engineering-related activities in these projects, according to NOAA statistics, is $103,254,000.

Services related to developing charts and maps have been performed under contract with federal agencies for many years. For example, the Department of Defense's Defense Mapping Agency currently is party to and has let over $6.4 million in contracts for mapping and charting. DoD contracts frequently involve activities at extremely sensitive locations involving classified materials and facilities.

According to OMB Director David Stockman, a vigorously-implemented program of private sector contracting " . . . has the potential of saving the taxpayers over $60 million in NOAA and $1 billion annually . . ."

DETERMINING FUNCTIONS TO BE CONTRACTED

OMB Circular A-76 describes functions appropriate for federal employee performance as those "which require either exercise of discretion in applying Government authority or the use of value judgment in making decisions for the government." A commercial activity is described as one "which provides a product or service which could be obtained from a commercial source." The Circular list of "examples of commercial activities" includes "mapping and charting," "architect and engineer services," and "geological surveys." The list "should not be considered exhaustive, but should be considered an aid in identifying commercial activities," again from the Circular.

ACEC would like to suggest some guidelines for determining services involved in various stages of map and chart production for which commercial sources are available.

IN-HOUSE PERFORMANCE

A-76 notes that "governmental" functions "require either the exercise of discretion in applying the Government authority or the use of value judgment in making decisions for the government." Setting aside the very real possibility that value judgments could perhaps be made by contractors experienced in performing the function, the following functions would meet the test of continued performance by federal employees:

Assessment and evaluation of the reliability of raw data, and of its source.

Deciding what data are used in nautical and aeronautical charts, which will determine the usefulness and accuracy of the chart and to which user group it will be most important.

CONTRACTOR PERFORMANCE

As noted above, "commercial activities" must be procured by contract with qualified private sector suppliers. The following functions are commercial activities and should be available for contract:

Acquisition of data and other objective, factual information including field collection and verification, by means such as geodetic, topographic, hydrographic, and land surveying, and photogrammetry.

Physically producing the maps and charts, including scribing, negative engraving, printing, photoreproduction and distribution.

Data representation to depict placement of buoys, boundaries, shores, depths, and other descriptions of existing conditions.

SUMMARY AND CONCLUSIONS

1. Private sector engineering firms already possess the expertise and experience to serve as reliable federal contractors for a broad range of services currently provided mainly by NOAA employees.

2. NOAA contracts negotiated under Public Law 92-582 would involve development of approaches and technology appropriate for particular agency needs, allowing the NOAA contracting officer ultimate control over performance, specifications, and compensation.

3. OMB Circular A-76 provides a framework for determining whether federal services should be supplied by federal employees or private sector contractors, while allowing agency contracting officers to maintain control over the quality of the product. The A-76 process also guarantees that valid national security concerns be addressed.

We appreciate the opportunity to submit our remarks, and hope that you, your fellow committee members, and appropriate staff will not hesitate to call with any questions or comments you might have.

Sincerely,

WILLIAM J. BIRKHOFER,
Managing Director, Governmental and International Services.

AMERICAN LIBRARY ASSOCIATION,
Washington, DC, August 20, 1984.

Senator TED STEVENS,
Vice Chairman, National Ocean Policy Study, U.S. Senate, Washington, DC.

DEAR SENATOR STEVENS: The American Library Association appreciates the opportunity to register its concern about the wholesale contracting out of federal government library operations and asks that this letter be made part of the hearing record for the August 6 hearing on the implementation of Office of Management and Budget Circular A-76 at the National Oceanic and Atmospheric Administration.

The American Library Association, a nonprofit educational organization of almost 40,000 librarians, trustees, educators, information specialists and other friends of libraries, has taken an active interest in the library and information activities of the federal government throughout its history. Included in the Association's membership are members of the Federal Librarians Round Table, the specific unit within ALA whose purposes include the promotion of appropriate utilization of federal library and information resources and facilities.

The Association believes that the full implications of wholesale contracting out of federal library operations to the private sector are not fully comprehended by the policymakers responsible. Contracting out threatens not only the charting and mapping activities at NOAA which are the chief focus of your inquiry, but also the NOAA libraries which are the primary scientific and technical information research service for the National Ocean Service, the agency in which the charting and mapping functions are placed. The NOAA headquarters library in Rockville, Maryland, manages many unique and important information resources in the areas of meteorology, climatology, nautical cartography, oceanography, and related scientific disciplines. The Boulder, Colorado, facility is the largest Commerce Department library west of the Mississippi River, serving all Commerce Department employees in a nine-state region. Both facilities serve top officials, policymakers, and expert program staff of NOAA.

The NOAA library program now represented by the Library and Information Services Division is a major information program within NOAA. The libraries have been an integral part of NOAA and its predecessors since 1807 for the Coast and

Geodetic Survey, 1871 for the Fish Commission, and 1879 for the Weather Service. In the 1970s they were recognized as part of the NOAA scientific information program. The Library and Information Services Division fulfills the role of a national library, making information and data obtained both domestically and abroad in the atmospheric and oceanic sciences available to users in commerce, industry, academia, other parts of the private sector, and all levels of government. The Division manages information resources which have been developed since the early nineteenth century and are recognized and respected by the atmospheric and marine science community in both private and public sectors. Many are unique and rare.

The Division provides 60,000 service transactions per year in response to inquiries. Approximately 30 percent go directly to the non-NOAA atmospheric and marine science communities. The other 70 percent contribute to NOAA programs, and hence indirectly to the external community. Service is provided to virtually every state in the union particularly to those with marine coast lines.

Such library functions are not "commercial activities" as defined by OMB Circular A-76. The Federal Librarians Round Table believes, and strongly recommended to OMB during the 1983 revision of Circular A-76, that "library operations" should be removed from the list of potentially contractable A-76 activities because the inclusion of such functions seriously misrepresents many of the roles and missions of libraries in federal agencies. Many of the operational functions of the NOAA libraries which the agency plans to contract to the private sector are governmental because they demonstrate one or more characteristics such as decisionmaking impacting programs, value judgments, representation of the government, expenditure of funds, employer-employee relationships, long-term detailed knowledge of the agency, variability, and lack of standards. Contracting out operations which provide policy and mission support to the highest levels of a federal agency is unwise, indeed, inappropriate. Unfortunately, A-76 fails to provide a distinction between the information and library functions which provide policy and program support and those which provide general information dissemination operations.

Further, the Federal Librarians Round Table fails to understand why such federal information activities as the NOAA libraries and their counterparts in other federal departments and agencies are considered "commercial activities." Colleges, universities, cities, towns, states, countries, even industrial corporations rarely, if ever, contract out the entirety of their library and information functions. Why, then, should the federal government? There is no evidence that long-term benefit will result from wholesale contracting out of federal library and information operations. Indeed, one manager of a facility which has recently been turned over to contractor operation has stated that costs of contractor operation in a few years will be higher than the operation of the library by federal government employees.

Under the requirements of A-76 there are many other reasons why such contracting out is deterimental to the policy and program management functions supported by federal library operations. The corporate memory and the longitudinal knowledge of agency missions, programs and functions which federal libraries provide are a critical part of the core capability needed for the effective functioning of the federal government. Such memory and core capability are thus inherently governmental. In the case of federal agencies they are a vital part of the structure which agencies need if they are to fulfill their statutory mandates. It seems unwise and inappropriate to turn over such functions to the control of the private sector.

Equally disturbing is the extent to which foreign control of federal information resources is possible. Nothing in Circular A-76 bars subsidiaries of foreign firms or agents of foreign governments from bidding on A-76 contracts so long as the bidder is located in the United States and is managed by United States citizens. It appears also that such an entity could appeal a non-award of a contract were it based solely on the nationality of the bidding entity. At a time when the Administration expresses concern about the scientific and technical knowledge drain overseas is it wise or prudent to voluntarily surrender control over key components of the Nation's information infrastructure to foreign interests?

In addition to those policy matters, there are several practical problems associated with developing and monitoring A-76 library contracts. For example: How can realistic specifications be developed for intellectual services such as reference assistance? Without established performance measures how can such intellectual services be monitored to ensure that the user group is properly served, including top officials, policymakers, and expert staff? How can knowledgeable staff with the requisite knowledge of the agency, its missions, and programs be developed and retained when contracts must be recompeted every three to five years with potential for major disruptions of services as the award of the contracts shifts operations of a facility from one contractor to another? How can such contracts be monitored to

guard against fraud, waste and abuse? What steps can agencies take, realistically, to ensure that all contractor database searching is restricted only to needs of agency personnel? How will expenditures of funds for information resources be monitored to assure that all of the information resources needed have been purchased—and that no unneeded resources have been? That the expenditure of funds by the contractor was consistently in the best interests of the federal government and the user population served?

When the Office of Management and Budget held a public hearing on the revision of Circular A-76 in March 1983, Representative Major Owens from New York, a former librarian and contractor administrator, addressed a number of the issues raised in this letter, in addition to many other problems with the wholesale contracting out of federal library operations.

The American Library Association appreciates the opportunity to comment on the implementation of OMB Circular A-76 and is available for further discussion of specific issues.

Sincerely,

EILEEN D. COOKE,
Director, Washington Office.

[The following information was referred to on p. 43:]

NOAA—INVENTORY OF COMMERCIAL ACTIVITIES—MORE THAN 10 FTE'S

Activity and location	Description of activity	Approximate number of FTE	Status as of November 8, 1984
NOAA Logistics Supply Center, Kansas City, MO.	Provides warehousing, packaging, and issuing of equipment, publications, common use forms and other supplies required for use throughout NOAA.	23	Contracted out on June 15, 1984.
General Metro Support Services, Rockville, MD.	Provides local office and logistics support (except procurement) for NOAA activities in the Washington Metro Area.	48	Cost bid comparison won by in-house bid
MASC Library Services, Boulder, CO.	Provides library and information services in the fields of interest of the Boulder, CO complex.	18	Work statement being developed.
MASC Library Services, Boulder, CO.	Provides supply management services (excluding procurement) for the MASC.	34	Do.
Data Center Archival and ADP Services, Asheville, NC.	Provides ADP, archival and technical support services for NCC.	114	Awaiting private sector proposals.
Library and Information Services, Rockville, MD.	Provides library and information services for both NOAA and non-NOAA interests.	25	Do.
Data Center illustration and ADP operations, Washington, DC.	Provides scientific illustration and ADP support services for NODC.	21	Evaluating private sector proposals.
Aeronautical chart branch, Silver Spring, MD.	Constructs and maintains aeronautical charts and related publications to meet requirements of civil-military aviation.	106	Work statement being developed.
Tides and water levels branch, Rockville, MD.	Determines requirements and provides direction and analysis for the tide and water level data collection program.	74	No longer subject to review.
Marine chart branch, Rockville, MD.	Construction and maintenance of nautical charts, Cost Pilots, and other related marine publications.	37	Work statement being developed.
Geodetic Resources Management, Rockville, MD.	Establishes, improves, and maintains a basic horizontal and vertical network of geodetic control. Provides technical and logistical support to geodetic field units and compiles, publishes, and maintains information for the geodetic user community.	244	Management study underway.
Atlantic Marine Center, Norfolk, VA.	Provides operational and technical support (including ship operation) for all hydrographic, oceanographic, and marine resource activities at the AMC.	156	Work statement being developed.

NOAA—INVENTORY OF COMMERCIAL ACTIVITIES—MORE THAN 10 FTE'S—Continued

Activity and location	Description of activity	Approximate number of FTE	Status as of November 8, 1984
Circulatory surveys section, Rockville, MD.	Plans and provides guidance for conducting circulatory (current) investigations, performs analysis and compiles and disseminates related data.	16	No longer subject to review.
Pacific Marine Center, Seattle, WA.	Provides operational and technical support (including ship operation) for all hydrographic, oceanographic, and marine resource activities at the PMC.	533	Management study underway.
GFDL computer operations, Princeton, NJ.	Provides ADP support for the research activities conducted at GFDL.	16	Do.
National Weather Service engineering activities, Washington, DC, Kansas City, MO, Ft. Worth, TX, Salt Lake City, UT, and Garden City, NY.	Provides maintenance, reconditioning and quality control in support of the NWS technical equipment program. Provides engineering, facilities and instrumentation support to NWS field installations. Provides a full spectrum of engineering support activities for the National Weather Service.	214	Do.
Test and evaluation division, Sterling, VA.	Conducts and evaluates laboratory and field tests of meteorological instruments, equipment and observational methods and procedures.	39	Evaluating private sector proposals.
Weather chart reproduction, Camp Springs, MD.	Provides technical support and weather chart reproduction services for NWS.	13	Awaiting private sector proposals.
Communications operations branch, Suitland, MD.	Provides for the installation operation, adjustment, and maintenance of communications equipment for NWS.	40	Evaluating private sector proposals.
Alaska Region Weather Service activities, Anchorage, AK, Fairbanks, AK.	Provides engineering facilities and instrumentation support to NWS field installations. Provides electronic maintenance for NWS instrumentations in the Anchorage, AK, area. Provides electronic maintenance for NWS instrumentation at the WSFO, Fairbanks, AK. Provides aviation observations at the Fairbanks WSFO.	35	Management study underway.
NWS Hawaii activities, Honolulu, HI.	Provides electronic maintenance for NWS instrumentation at the WSFO, Honolulu, HI. Provides weather observations and communications support for the WSFO, Honolulu, HI.	21	Do.
NWS New York Area Airport observations, New York, NY, Newark, NJ.	Provides aviation observations at the NY/Kennedy WSO. Provides aviation observations at the Newark WSO. Provides aviation observations at the NY/LaGuardia WSO.	19	Do.
NWS LA Area Airport observations, Los Angeles, CA, Long Beach, CA.	Provides aviation observations at the Los Angeles Int. WSO/AV. Provides aviation observations at the Long Beach WSO.	14	Do.
NMC-computer operations, Suitland, MD.	The computer operations section provides computer support for the processing, communication and retention of meteorological data for the National Meteorological Center of the National Weather Service.	50	Study not started.
Northwest and Alaska fisheries activities, Seattle, WA.	Provides ADP support for the Northwest and Alaska Fisheries Center, NMFS. Provides facilities maintenance for the Northwest and Alaska Fisheries Center, NMFS. Provides editing and publication coordination services for NMFS scientific publications.	60	Do.

NOAA—INVENTORY OF COMMERCIAL ACTIVITIES—MORE THAN 10 FTE'S—Continued

Activity and location	Description of activity	Approximate number of FTE	Status as of November 8, 1984
Southeast Fisheries Center activities, Miami, FL.	Provides ADP support for the Southeast Fisheries Center, NMFS. Provides editing services for NMFS scientific publications. Provides facilities maintenance support for the Southeast Fisheries Center, NMFS.	25	Work statement being developed.
Northeast Fisheries Center activities, Woods Hole, MA.	Provides ADP support for the Northeast Fisheries Center, NMFS. Provides facilities maintenance support for the Northeast Fisheries Center, NMFS.	39	Study not started.
Southwest Fisheries Center activities, LaJolla, CA.	Provides ADP support for the Southwest Fisheries Center, NMFS.	33	Management study underway.
IMS FOB-4 computer operations, Suitland, MD.	Provides comprehensive computer services to NOAA components as well as other DOC organizations. Responsibilities include installation, testing, modification, and operation of IMS computers.	44	To be studied as part of study on NMC computer operations.
WASC supply activity, Seattle, WA.	Provides warehousing and supply support for 10 Western States including Alaska and Hawaii.	9	Work statement being developed.
National Geophysical Data Center ADP operations, Boulder, CO.	Provides centralized ADP and information services for NGSDC.	5	Awaiting private sector proposals.
Imagery Processing Laboratory, Washington, DC.	Provides aerial photography film processing services for NOS.	5	Contracted out on September 15, 1984.
Overseas logistics operations, Silver Spring, MD.	Provides for the establishment, supply and resupply of observation stations in foreign lands and on the high seas.	6	Awaiting private sector proposals.
Washington area technicians, Silver Spring, MD.	Fabricates, modifies, and constructs parts and finished assemblies of instruments and equipment under development. Operates and maintains the AFOS experimental facility including equipment and related communications.	7	Do.
Dulles Airport weather observation, Chantilly, VA.	Provides aviation observations at the Washington/Dulles International WSO.	9	Management study underway.
O'Hare Airport weather observation, Chicago, IL.	Provides aviation observations at the Chicago/O'Hare WSO.	10	Do.

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